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COVID-19: SIMPLE ANSWERS TO TOP QUESTIONS

RISK COMMUNICATION FIELD GUIDE QUESTIONS AND KEY MESSAGES

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NOTE – THE UNDERSTANDING OF COVID-19 IS RAPIDLY EVOLVING AND THIS DOCUMENT WILL BE UPDATED PERIODICALLY TO REFLECT NEW INFORMATION AND RECOMMENDATIONS AS THEY BECOME AVAILABLE.

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I. INTRODUCTION

This document is the sixth edition of *COVID-19: Simple Answers to Top Questions*. It is an updated version of the original document published on March 10, 2020. With the rapid evolution of knowledge and policy regarding COVID-19, future revisions will be produced on an ongoing basis.

In February 2020, ASTHO sponsored the development of the first edition of *COVID-19: Simple Answers to Top Questions*[1] with risk communication experts and a working group of State Health Officials using the science-based, risk communication message mapping development process.[2] "Message Maps" are risk communication tools used to help organize complex information and make it easier to express current knowledge. The development process distills information into clear and easily understood messages. For ease of use, each complete message map is on a single page.

ASTHO's *COVID-19: Simple Answers to Top Questions* is based on message maps and follows the belief that state health officials need both short and long answers. Messages are presented initially in no more than 3-5 short sentences and convey 3-5 key messages, ideally in the least number of words possible. The approach is based on surveys showing that lead or front-page media and broadcast stories usually convey only the soundbite: 3-5 messages usually in less than 9 seconds for broadcast media or 27 words for print. Each primary message normally has 3 to 5 supporting messages that can be used when and where appropriate to provide context for the issue being mapped. A brief description of the message mapping strategy is in the Appendices.

In the following pages, you will find 70+ top questions about COVID-19 answered with detailed message maps. ASTHO recommends that you review the Appendix "Media Interviews: Tips and Pitfalls" before you engage with the media.

The sixth edition includes common, frequently-asked-questions (FAQs) with basic and detailed information in the form of questions and answers (Q&A) about prevention guidelines, symptoms, testing, vaccines, research, social distancing, schools, opening up, mitigation and long-term response, funerals and post-mortem concerns, contact tracing, medical interventions, and more. Specifically, the sections on vaccination, testing, and contract tracing have been updated to represent current thinking.

Appendix G is intended for a technical audience. It contains extensive scientific and technical information on COVID-19. Given the propensity for rumors and misinformation during a pandemic like COVID-19, Appendix H has myth-buster advice for the public regarding COVID-19.

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[1] Please cite this publication as follows: Covello V. and Hyer R. *COVID-19: Simple Answers to Top Questions, Risk Communication Guide*. Association of State and Territorial Health Officials, October 19, 2020. Arlington, Virginia.

[2] Contributions from the following people are acknowledged: Glen Nowak, Tom Hipper, Craig Manning, and Paula Hoelker-Williams.

II. PREFACE

State and Territorial Health Officials (S/THOs) play a critical role in the health security of our nation. The demands are many, and the margin of error is small. S/THOs must translate the best available public health evidence and science into actionable policy advice for elected leaders and other cabinet agencies. They must act as a credible, timely source of accurate information to a variety of stakeholders. Equally important, the SHO and the public health team must convey a clear, compassionate, and caring message to the public to motivate appropriate protective behaviors without instilling inappropriate fear. All of this must occur while leading and managing complex public health agencies strained under the demands of an emergency response.

The role is all the more complex in a rapidly evolving situation in which many unknowns remain. Overconfidence or utilizing an inaccurate mental model of an issue can lead to missteps and diminish public trust. It is critical for this reason to be very cognizant of what is known, what is unknown, what is controllable, and what is not controllable. This humility allows rapid adjustments to strategies and tactics and allows an accurate and credible message to be delivered to and received by the public and policymakers.

ASTHO worked closely with Drs. Randall Hyer and Vincent Covello from the Center for Risk Communication/CrisisCommuncation.net to develop this communication guide to assist S/THOs in preparing to communicate with the public, media, and policymakers about COVID-19. It is openly acknowledged that knowledge of COVID-19 is rapidly evolving and subject to many uncertainties.

State and territorial health officials prioritized more than 70+ questions on COVID-19 for which these message map style answers were developed. Of course, a S/THO's judgment will determine the most appropriate response to an issue in his or her jurisdiction. It is our hope that this messaging guide can provide S/THOs with a baseline of consistent messages across our nation.

COVID-19: Simple Answers to Top Questions will be modified and updated as events evolve, and more is known.

Thank you for your service of protecting and improving the health of our nation.

Michael Fraser, PhD, CAE
Chief Executive Officer
Association of State and Territorial Health Officials

III. TABLE OF CONTENTS

IV. COMMUNICATING WITH MESSAGE MAPS

This risk communication toolkit contains information about COVID-19. Answers to important questions are presented in a format called a "message map." According to the Centers for Disease Control and Prevention (CDC), a message map is a science-based risk communication tool used to help organize complex information and make it easier for information to be shared.

A message map distills information into a series of layered messages, from basic to more complex. Messages — e.g., answers to questions — are presented initially in a few bullets that convey key messages, ideally using the least number of words possible.[3] The key messages are then followed by additional information.

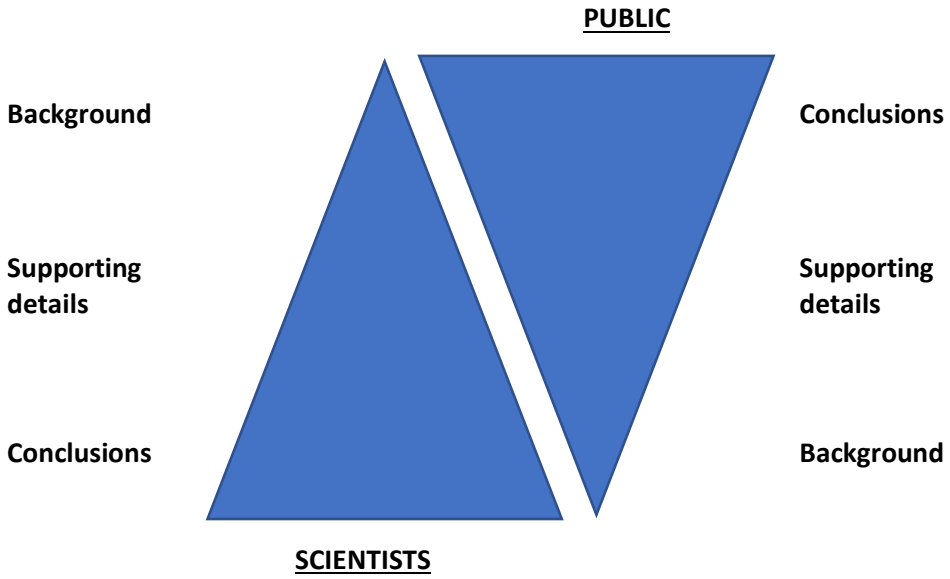
A key assumption of message mapping is that people want clear answers to their questions about complex scientific issues as well as access to more detailed answers to those same questions.[4] A second key assumption is if stakeholders — all those interested or impacted by the risk — are well-informed by the best and most up-to-date information about a complex scientific or technical issue, they are in a better position to engage, exchange information, and participate constructively in the decision-making process.

Unfortunately, many scientists face challenges in sharing complex scientific information. These challenges are addressed in part by message maps. First, scientists must overcome a basic obstacle to effective communication: people facing a perceived threat and under stress typically have difficulty processing information — hearing, understanding, and remembering. Second, as shown in Figure 2 on the next page, scientists are used to communicating with their peers in a particular format, beginning with background information, moving to supporting details, and finally coming to their results and conclusions. For communicating with the public, however a more effective approach is to invert that pyramid and begin with the conclusions — the bottom lines up front. The top line of a message map — the key messages — are the conclusions.

[3] See https://www.cdc.gov

[4] For more information about message mapping, see the U.S. Environmental Protection Agency: https://www.epa.gov

Figure 2: Scientific and Public Communication



Third, scientists often fail to craft clear messages that can be easily understood and recalled by non-experts. Message maps are designed to start with clear messages and build complexity through hierarchical layers. Fourth, because of details and lack of hierarchical structure, non-experts often have difficulty sorting out what is important from what is less important. Fifth, scientists sometimes speak in a code known only to other scientists, using the technical jargon of their field instead of plain language. Many words that seem perfectly normal to scientists are incomprehensible jargon to a lay audience. Sixth, scientists often fail to put findings into the context of the larger body of knowledge of what is scientifically well understood. Seventh, scientists often lead with what they do not know instead of what they do know. Eighth, scientists often fail to anticipate common misunderstandings and misperceptions.

Answering Questions with Message Maps

Message maps can be used to answer important questions in the form of a short answer consisting of ideally 3 (no more than 5) key messages expressed in 27 words. A longer answer consists of the shorter answer with supporting details. Best practices are to complete the answer to a question by repeating the shorter answer or key messages, which provides a soundbite that is easy to quote and remember.

V. MESSAGE MAPS: SHORTER AND LONGER ANSWERS

100 Series: Basic Questions

100. What are key facts about the global COVID-19 pandemic in the U.S.?

Key Messages/Shorter Answer (Soundbite):

1. *The U.S., states, territories, and local communities are using public health measures to reduce the spread of the virus and the burden on the healthcare system.*
2. *Social distancing, diagnostic testing, and masks can help slow the spread of COVID-19.*
3. *Public health measures and basic hygiene help prevent COVID-19 infection and spread.*

Longer Answer:

1. ***The U.S., states, territories, and local communities are using public health measures to reduce the spread of the virus and the burden on the healthcare system.***
   - Multiple jurisdictions have achieved promising results with public health measures but continue to face significant challenges.
   - Public health authorities are detecting, testing, treating, isolating, and finding contacts of those who have COVID-19 to help reduce spread.
   - Healthcare systems are strengthening protection for healthcare workers, expanding COVID-19 treatment, expanding testing, and implementing best practices in risk communication.
   - Public health measures may be strengthened or relaxed using a phased approach based on the number of confirmed cases.
2. ***Social distancing, diagnostic testing, and masks can help slow the spread of COVID-19.***[5]
   - People should follow social distancing guidelines and wear masks in public.
   - Experts are calling for widespread COVID-19 testing to facilitate identification, isolation, treatment, and contact tracing.
     - Testing availability, reliability, accuracy, and speed of results continue to be addressed.
   - Individual responsibility and public support for actions and steps to slow COVID-19 are needed.
3. ***Public health measures and basic hygiene help prevent COVID-19 infection and spread.***[6]
   - Infections are most likely when people are in close range to others, especially indoors, and when there is a lack of physical distancing in a crowded place.
   - Larger droplets can carry COVID-19 and fall out of the air rapidly while close to the source.
     - Most experts believe that both large and small airborne droplets transmit the virus that causes COVID-19.
     - Most experts believe the airborne droplets most likely to cause COVID-19 typically travel no more than six feet.
   - People should wash their hands often, avoid touching their faces, and cover coughs/sneezes.
   - People should wear masks and practice social distancing in public settings and disinfect frequently touched surfaces.
   - People should follow expert advice, verify information, and avoid dangerous myths.[7]

[5] https://www.cdc.gov/coronavirus/2019-ncov/about/transmission.html

[6] https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/prevention.html

[7] https://www.who.int/emergencies/diseases/novel-coronavirus-2019/advice-for-public/myth-busters

101. What are the signs/symptoms of COVID-19 and when do they appear?

Key Messages/Shorter Answer (Soundbite):

1. *Common COVID-19 symptoms include fever, dry cough, fatigue, and shortness of breath.*
2. *Symptoms of COVID-19 may appear 2-14 days after exposure.*
3. *The disease is often much more severe in the elderly and people with health conditions that make them more susceptible to illness.*

Longer Answer:

1. ***Common COVID-19 symptoms include fever, dry cough, fatigue, and shortness of breath.***[8]
    - Many people with COVID-19 have a mild to moderate upper respiratory tract infection similar to a cold.
        - COVID-19 symptoms may include fever, chills, repeated shaking with chills, muscle pain, headache, sore throat, congestion, runny nose, and loss of taste or smell.
    - Most people who test positive for COVID-19 have commonly had very mild or no symptoms.
    - Symptoms of COVID-19 in severe cases include pneumonia or breathing difficulties and constant pain or pressure in the chest area.
    - Older people and people with underlying medical conditions, such as diabetes, asthma, and heart disease, are more at risk of becoming severely ill from COVID-19.
2. ***Symptoms of COVID-19 may appear 2-14 days after exposure.***[6]
    - The time between when a person is exposed to an infectious agent (like the virus that causes COVID-19) and when symptoms appear is called the incubation period.
    - The current incubation period of COVID-19 is based on what is being learned from the infections taking place across the U.S. and the world.
    - The average incubation period is about 5-6 days but can be up to 14 days.
    - COVID-19 symptoms often start as mild and gradually get worse over a few days.
3. ***The disease is often much more severe in the elderly and people with health conditions that make them more susceptible to illness.***[9]
    - The fatality rate for COVID-19 varies depending upon a person's underlying health conditions, age, gender, and access to care.
    - More is being learned about how many people have severe illness or die from COVID-19 as new cases and data are being reported.
    - Estimates of the overall fatality rate for COVID-19 are uncertain, changing based on current data, and appear to range from less than 1% to 12% or greater.
    - COVID-19 illness is often more severe for people over 65 years old and those with an underlying health condition like diabetes, asthma, or heart disease.
    - People in places where health resources are limited or overburdened by the outbreak may experience more severe COVID-19 illness.

[8] https://www.cdc.gov/coronavirus/2019-ncov/symptoms-testing/index.html

[9] https://www.cdc.gov/coronavirus/2019-ncov/if-you-are-sick/steps-when-sick.html

102. Does COVID-19 affect children and adults differently?

Key Messages/Shorter Answer (Soundbite):

1. *Older adults with underlying health conditions are at the greatest risk for severe illness.*
2. *Children of all ages can become infected with COVID-19 and become ill.*
3. *Researchers have discovered in some children with COVID-19 a severe illness called Multisystem Inflammatory Syndrome in Children (MIS-C).*

Longer Answer:

1. ***Older adults with underlying health conditions are at the greatest risk for severe illness.***[10] [11] [12]
   - Age is an independent risk factor for severe disease and death from COVID-19.
     - The CDC found that 80% of COVID-19 deaths were among adults more than 65 years old, with the highest percentage among people more than 85 years old.
   - Higher COVID-19 cases and deaths among the elderly may be aggravated by, or a result of, underlying medical conditions.
   - Nearly 40% of all U.S. COVID-19 patients have had an underlying health condition, and nearly 80% of people having such a condition require admission to an intensive care unit.
2. ***Children of all ages can become infected with COVID-19 and become ill.***[9] [10] [13]
   - Children appear to be much less likely than adults to have severe COVID-19 illness.
   - If a child has symptoms of COVID-19, medical care should be sought.
   - While some children have been sick with COVID-19, adults make up most of the known cases.
   - In the U.S., children represent about 10% of all COVID-19 cases.[11]
   - Most children who are infected don't become as sick as adults and may not show symptoms.
   - Most of the children infected appear to have milder symptoms compared to adults.
3. ***Researchers have discovered in some children with COVID-19 a severe illness called Multisystem Inflammatory Syndrome in Children (MIS-C).***[14] [15]
   - Symptoms of MIS-C include persistent fever, rash or change in skin color, red eyes or conjunctivitis, abdominal pain, and swollen lymph nodes.
   - The first cases of Multisystem Inflammatory Syndrome in Children (MIS-C) appeared in April 2020, and as of October 1, the number of confirmed cases in children surpassed 1,000.
   - While the cause of MIS-C is unknown, many children with MIS-C have had the virus that causes COVID-19 or had been around someone with COVID-19.
   - MIS-C treatments have consisted primarily of supportive care and directed care against the underlying inflammatory process.
   - Healthcare providers should report suspected cases of MIS-C to health departments.

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[10] https://www.cdc.gov/mmwr/volumes/69/wr/mm6912e2.htm

[11] https://services.aap.org/en/pages/2019-novel-coronavirus-covid-19-infections/children-and-covid-19-state-level-data-report/

[12] https://journal.chestnet.org/article/S0012-3692(20)30710-8/fulltext

[13] https://www.nejm.org/doi/full/10.1056/NEJMc2005073

[14] https://www.cdc.gov/coronavirus/2019-ncov/daily-life-coping/children/mis-c.html

[15] https://www.cdc.gov/mis-c/hcp/

103. What about pregnant women and COVID-19?

Key Messages/Shorter Answer (Soundbite):

1. *Pregnant women may be at increased risk for severe COVID-19 illness compared with non-pregnant women.*
2. *Given that this is a novel virus, more is being discovered about its impact on pregnant women.*
3. *Experts believe that pregnant women are just as likely as the general public to develop symptoms if infected with the novel coronavirus that causes COVID-19.*

Longer answer:

1. ***Pregnant women may be at increased risk for severe COVID-19 illness compared with non-pregnant women.*** [16] [17] [18]
   - Pregnant women who have COVID-19 appear more likely to develop respiratory complications requiring intensive care than women who aren't pregnant.
   - Recent CDC data suggests that pregnant women with COVID-19 have higher rates of hospitalization and intensive care unit (ICU) admission.
   - Hispanic and non-Hispanic black pregnant women appear to be most affected by COVID-19 infection during pregnancy.
2. ***Given that this is a novel virus, more is being discovered about its impact on pregnant women.*** [19]
   - A novel coronavirus is a new coronavirus that has not been previously identified.
   - Coronaviruses other than the virus that causes COVID-19 have the potential to cause severe harm to pregnant women and their developing child.
   - Based on similarities to SARS (Severe Acute Respiratory Syndrome), pregnant women could be at increased risk of severe infections and illness.
   - Although pregnancy can change the body's immune system with a potential increase of serious illness from viral infections, this has yet to be observed with COVID-19.
   - Risk factors for severe COVID-19 during pregnancy include older maternal age, a high body mass index, and pre-existing diabetes or high blood pressure.
3. ***Experts believe that pregnant women are just as likely as the general public to develop symptoms if infected with the novel coronavirus that causes COVID-19.*** [20] [21] [22] [23]
   - As is true for the general population of similar ages, symptoms of COVID-19 are likely to be mild to moderate.
   - Pregnant women who believe they have been exposed to COVID-19 should inform their doctor.
   - Much remains unknown about the effect of COVID-19 on pregnant women.

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[16] https://www.nejm.org/coronavirus

[17] https://www.cdc.gov/mmwr/volumes/69/wr/mm6925a1.htm

[18] https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(20)30360-3/fulltext

[19] https://www.thelancet.com/pdfs/journals/lancet/PIIS0140-6736(20)30311-1.pdf

[20] https://jamanetwork.com/journals/jama/pages/coronavirus-alert

[21] https://parenting.nytimes.com/childrens-health/coronavirus-children-pregnant-women

[22] https://www.health.harvard.edu/blog/pregnant-and-worried-about-the-new-coronavirus-2020031619212

[23] https://www.cdc.gov/coronavirus/2019-ncov/need-extra-precautions/pregnancy-breastfeeding.html

104. Can pets and livestock be infected with COVID-19?

Key Messages/Shorter Answer (Soundbite):

1. *The virus that causes COVID-19 can cause infections in animals.*
2. *There is no evidence that pets in the U.S. are spreading the virus that causes COVID-19.*
3. *Much remains unknown regarding the virus that causes COVID-19 and infections in pets and livestock.*

Longer Answer:

1. ***The virus that causes COVID-19 can cause infections in animals.***[24]
   - Coronaviruses are common in several species of domestic and wild animals, including cattle, horses, dogs, cats, ferrets, camels, bats, and others.
   - Coronaviruses are named for the crown-like spikes on their surface.
     - Examples of coronaviruses that infect humans include common colds, SARS (Severe Acute Respiratory Disease), and MERS (Middle East Respiratory Syndrome).
   - Some coronaviruses, such as COVID-19, are zoonotic, meaning they usually exist in animals but can be transmitted to humans.
   - There is increasing evidence that some animals can catch the virus that causes COVID-19 from people.
2. ***There are only a few isolated and confirmed cases of pets carrying COVID-19 in the U.S.***[25]
   - The Department of Agriculture confirmed cases of COVID-19 in two pet cats in New York.[26]
     - Both cats had mild respiratory illness and have made a full recovery.
   - There have been few reported cases in animals worldwide, with most having close contact with people with COVID-19.
   - While there have been reports of pets being infected with the virus that causes COVID-19, there is no evidence to indicate that pets can spread COVID-19 to people.
3. ***Much remains unknown regarding the virus that causes COVID-19 and illness in pets and livestock.***[27]
   - Research is being done to learn more about the spread of COVID-19 from farm animals.
   - People should always wash their hands with soap and water after contact with animals.
   - Washing one's hands protects against various common bacteria such as E. coli and Salmonella that can pass between animals and humans.
   - If you are sick with COVID-19 or suspect that you might be, avoid contact with your pets and other animals, just like you would around other people.

[24] https://www.who.int/health-topics/coronavirus#tab=tab_1

[25] https://www.cdc.gov/coronavirus/2019-ncov/daily-life-coping/animals.html

[26] https://www.cdc.gov/media/releases/2020/s0422-covid-19-cats-NYC.html

[27] https://www.osha.gov/SLTC/covid-19/

105. How is COVID-19 different from the flu and the common cold?

Key Messages/Shorter Answer (Soundbite):

1. *COVID-19 spreads faster and can be more severe and deadly than influenza or the common cold.*
2. *Most coronavirus infections cause very similar types of respiratory illness at the onset.*
3. *Confirmed COVID-19 illnesses have ranged from mild symptoms to severe illness and death.*

Longer Answer:

1. ***COVID-19 spreads faster and can be more severe and deadly than influenza or the common cold.***[28] [29]
    - The main symptoms of COVID-19 include fever, dry cough, fatigue, and shortness of breath.
        - COVID-19 symptoms may also include chills, repeated shaking with chills, muscle pain, headache, sore throat, congestion, runny nose, and loss of taste or smell.
    - People with COVID-19 can variably progress and regress from mild symptoms to high fever, difficulty breathing, persistent pain in the chest, and even pneumonia.
    - Since initial symptoms are often similar to some of the symptoms of colds and flu (e.g., cough and fever), diagnostic tests help determine if a person has COVID-19.
    - Compared to COVID-19 and the flu, cold symptoms tend to come on gradually and mostly involve the head and neck, with sneezing being more common.
2. ***Most coronavirus infections cause very similar types of respiratory illness at the onset.***[30]
    - In some mild cases, COVID-19 causes runny nose, dry cough, fatigue, sore throat, and fever.
        - COVID-19 symptoms may also include chills, repeated shaking with chills, muscle pain, headache, sore throat, congestion, runny nose, and loss of taste or smell.
    - Diagnostic tests are needed to help determine if someone has COVID-19.
    - Doctors are still trying to understand the full picture of the disease caused by COVID-19.
3. ***Confirmed COVID-19 illnesses have ranged from mild symptoms to severe illness and death.***[31]
    - For confirmed COVID-19, reported illnesses have ranged from people with mild symptoms to people being severely ill and dying.
    - Estimates of the overall fatality rate for COVID-19 are uncertain, changing based on current data, and appear to range from less than 1% to 12% or greater.
    - If someone has mild symptoms of a cold or influenza and is concerned about having contact with COVID-19, they should contact a local healthcare provider.

[28] https://www.cdc.gov/coronavirus/2019-ncov/faq.html

[29] https://www.cdc.gov/coronavirus/2019-ncov/if-you-are-sick/steps-when-sick.html

[30] https://www.livescience.com/new-coronavirus-compare-with-flu.html

[31] https://www.who.int/news-room/q-a-detail/q-a-coronaviruses

106. How deadly is COVID-19?

Key Messages/Shorter Answer (Soundbite):

1. *COVID-19 is deadly, with a wide variation in fatality rates.*
2. *Older people and those with underlying medical conditions are more likely to die from COVID-19.*
3. *Most people with COVID-19 have mild symptoms and survive.*

Longer Answer:

1. ***COVID-19 is deadly, with a wide variation in fatality rates.***[32] [33] [34] [35]
   - Current fatality rates by country appear to vary from over 15% to less than 1%.[36] [37]
   - Most COVID-19 deaths are among the elderly.
     - For every 1,000 people under age 50, very few will die.
     - For every 1,000 people in their fifties and early sixties, about five will die — more men than women.
     - For every 1,000 people in their mid-seventies or older, more than 100 will die.
   - Estimated fatality rates vary based on many factors, including testing, confirmed cases, age, gender, country, availability of healthcare resources, reporting systems, socio-economic factors, the severity of patients' illness, and medical treatment.
   - Most people who died from COVID-19 had underlying health conditions.
   - In the U.S., most COVID-19 deaths have been among those 65 years old and older.
2. ***Older people and those with underlying medical conditions are more likely to die from COVID-19.***[32] [33] [34] [35] [36] [37]
   - Higher COVID-19 cases and deaths among the elderly appear to be linked to the presence of other health problems, a weaker immune or respiratory system, and poor overall health.
   - People with diabetes, chronic lung disease, cancer, and cardiovascular disease appear to be at higher risk for severe COVID-19 illness than people without these conditions.
   - Just under one-half of all U.S. COVID-19 patients have an underlying health condition.
   - Many people with underlying health conditions require Intensive Care Unit admission.
3. ***Most people with COVID-19 have mild symptoms and survive***.[32] [35] [38]
   - More is being learned each week about the severity and mortality of COVID-19 as new cases and data are being reported.
   - Many people experiencing mild symptoms do not inform public health authorities and, therefore, are not included in reported case counts.
   - COVID-19 illness may be more severe where health resources are limited or overburdened.

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[32] https://www.who.int/news-room/q-a-detail/q-a-coronaviruses

[33] https://www.cdc.gov/nchs/nvss/vsrr/covid_weekly/index.htm?fbclid=IwAR3-wrg3tTKK5-9tOHPGAHWFVO3DfslkJ0KsDEPQpWmPbKtp6EsoVV2Qs1Q

[34] https://www.cdc.gov/coronavirus/2019-ncov/covid-data/investigations-discovery/hospitalization-death-by-age.html

[35] https://www.cdc.gov/coronavirus/2019-ncov/faq.html

[36] https://www.statista.com/statistics/1105914/coronavirus-death-rates-worldwide/

[37] https://www.nature.com/articles/d41586-020-02483-2

[38] https://www.who.int/emergencies/diseases/novel-coronavirus-2019/advice-for-public/myth-busters

107. What is the difference between COVID-19 and the common cold?

Key Messages/Shorter Answer (Soundbite):

1. *The common cold is caused by a different strain of coronavirus than COVID-19.*
2. *COVID-19 can be more dangerous than the common cold.*
3. *Recommended preventive measures are stricter for COVID-19 than the common cold.*

Longer Answer:

1. ***The common cold is caused by a different strain of coronavirus than COVID-19.***[39] [40]
   - Coronaviruses are a large family of viruses found in both animals and humans.
   - Many coronaviruses circulate in the U.S., and the novel coronavirus that causes COVID-19 is a virus for which humans have no immunity.
   - A novel coronavirus is a new coronavirus that has not been previously identified.
   - The coronaviruses that normally circulate in the U.S. and the world cause 10% to 30% of upper respiratory tract infections, or the common cold, in adults.
   - COVID-19 symptoms usually peak within the first two to three days of infection.
     - More severe consequences of COVID-19 usually appear two to 14 days after exposure.
   - Although cough, sore throat, and body aches are all symptoms of the common cold, a sudden loss of taste or smell is more likely to be caused by COVID-19 illness.
2. ***COVID-19 can be more dangerous than the common cold.***[41] [42]
   - Most people with COVID-19 and the common cold have mild illnesses or symptoms, but those with COVID-19 more frequently become very ill.
   - Unlike the common cold, COVID-19 more frequently produces kidney failure, severe pneumonia, respiratory failure, and death.
   - While some children and infants have been sick with COVID-19, it is more dangerous to adults.
   - COVID-19 has the potential to develop severe symptoms that can lead to death.
3. ***Recommended preventive measures are stricter for COVID-19 than the common cold.***[40] [41] [43]
   - Federal, state, territorial, and local authorities have implemented physical and social distancing rules and recommendations to slow COVID-19.
     - Social distancing and the wearing of masks help slow the spread of COVID-19.
   - In specific settings, federal, state, territorial, and local officials have issued travel restrictions or recommendations.
   - People are strongly encouraged to follow strict hygiene measures to help prevent COVID-19 infection and spread.
   - People should avoid dangerous myths and rumors.

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[39] https://www.cdc.gov/coronavirus/types.html

[40] https://jamanetwork.com/journals/jama/pages/coronavirus-alert

[41] https://www.who.int/emergencies/diseases/novel-coronavirus-2019/advice-for-public/myth-busters

[42] https://www.cdc.gov/coronavirus/2019-ncov/about/transmission.html

[43] https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/prevention.html

108. How infectious is the virus that causes COVID-19?

Key Messages/Shorter Answer (Soundbite):

1. *The virus that causes COVID-19 is very infectious.*
2. *How easily the virus spreads from person-to-person appears highly variable.*
3. *Much is still unknown about the spread of the virus that causes COVID-19.*

Longer Answer:

1. ***The virus that causes COVID-19 is very infectious.***[44] [45] [46]
   - The virus that causes COVID-19 can spread from people who are infected but who do not have or notice their symptoms.
     - Between 25% and 50% of people infected with the virus appear to show no symptoms in the days following infection.
     - Research indicates that just breathing or speaking may be enough to spread COVID-19.
   - The coronavirus that causes COVID-19 may spread through the air in tiny particles that people exhale during normal breathing and speaking.
   - COVID-19 can be spread through droplets from coughing, sneezing, or nasal discharge.
   - People with COVID-19 are most infectious when they are most ill and producing droplets.
     - Transmission of COVID-19 does occur from people without symptoms, but the rate and impact are still unknown.
     - Because people can spread COVID-19 without having symptoms, the case-fatality rate for COVID-19 may be lower than currently estimated, which increases the importance of community interventions, supports the use of masks in public, and strengthens the call for widespread testing and thorough contact tracing.
2. ***How easily the virus spreads from person-to-person appears highly variable***.[44] [45] [46]
   - Since most cases of COVID-19 are mild, many more people are likely to be or have been infected than current testing numbers indicate.
   - As more people are tested, experts will better understand the extent of COVID-19.
   - Scientists have estimated that one infected person could spread COVID-19 to approximately two or three other people unless preventive actions are taken.
   - Transmission usually happens with close contact (within 6 feet) with an infected person.
3. ***Much is still unknown about the spread of the virus that causes COVID-19.***[44] [45] [47]
   - Based on currently available data, people who have symptoms are believed to be causing the majority of virus spread, but those with no or mild symptoms can also spread the virus.
   - Research is needed to learn more specifics about how the virus that causes COVID-19 is spread, including how well it spreads from touching contaminated surfaces.
   - As experts identify more cases, guidance and control strategies may need to change.

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[44] https://www.cdc.gov/coronavirus/2019-ncov/hcp/faq.html

[45] https://www.who.int/emergencies/diseases/novel-coronavirus-2019

[46] https://www.nytimes.com/news-event/coronavirus

[47] https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(20)30183-5/fulltext

109. Can you get COVID-19 from mail packages or imported goods that arrive from infected areas?

Key Messages/Shorter Answer (Soundbite):

1. *No cases of people contracting COVID-19 have been reported from packages or imported goods.*
2. *The virus that causes COVID-19 may persist on surfaces for a few hours or up to several days, but the true health significance is still unknown.*
3. *The risk of catching COVID-19 from a package is believed to be low.*

Longer Answer:

1. ***No cases of people contracting COVID-19 have been reported from packages or imported goods.***[48]
   - Experts believe there is little or no risk of COVID-19 from shipped products or packages.
   - If you think a package may be suspect, clean it with disinfectant.
   - Wash your hands with soap for at least 20 seconds after handling a package.
     - If soap and water are not available, use a hand sanitizer with at least 60% alcohol.
2. ***The virus that causes COVID-19 may persist on surfaces for a few hours or up to several days, but the true health significance is still unknown.***
   - Survival of COVID-19 on surfaces appears to behave like other coronaviruses.
   - Initial studies suggest the virus that causes COVID-19 can survive on surfaces for at least a few hours and may survive on plastic, glass, and metal for several days.
   - Virus survival varies under different conditions, such as type of surface, temperature, or humidity.
3. ***The risk of catching COVID-19 from a package is believed to be low.***
   - People receiving packages from countries with confirmed cases of COVID-19 are unlikely to be at increased risk of infection from the package or packaging.
   - Recent laboratory research has shown that although the virus can be detected on surfaces for up to a day, the reality is that the virus levels drop off quickly.
   - People should wash their hands for at least 20 seconds with soap and water after bringing in packages, or after trips to the grocery store or other places where they may have come into contact with infected surfaces.
     - If soap and water are not available, use a hand sanitizer with at least 60% alcohol.
     - If storage space is available, people can leave mail and packages untouched for 24 hours as an extra precaution.

[48] https://www.cdc.gov/coronavirus/2019-ncov/faq.html#Cleaning-and-Disinfection

110. How can people avoid or reduce social stigma associated with COVID-19?

Key Messages/Shorter Answer (Soundbite):

1. *Stigma can be as dangerous as the virus that causes COVID-19.*
2. *A virus can infect anyone regardless of race, ethnicity, country, or beliefs.*
3. *There are things people can do to prevent and reduce stigma.*

Longer Answer:

1. ***Stigma can be as dangerous as the virus that causes COVID-19.***
   - Viruses are a threat to all people, regardless of race, ethnicity, or the country one lives in.
   - Stigma and discrimination can occur when people associate an infectious disease with a specific geographical region or area.
   - Stigma hurts everyone by creating fear or anger towards ordinary people instead of the virus that is causing the problem.
     - Stigmatization of special populations, such as the homeless and non-English speaking people, can spark dangerous incidents.
   - Stigma is dangerous because it can make people less likely to seek healthcare, thereby enabling the virus to spread more rapidly.
2. ***A virus can infect anyone regardless of race, ethnicity, country, or beliefs.***
   - COVID-19 infections and spread are happening across the U.S. and the world.
   - Ancestry does not make a person more vulnerable to COVID-19.
   - People wear masks for many reasons, including air pollution and pollen.
   - As COVID-19 continues to spread in the U.S. and the world, any person can become infected and get sick.
3. ***There are things people can do to prevent and reduce stigma.***[49]
   - Speak up if you hear, see, or read misinformation or harassment.
   - Show compassion and support for those most closely impacted.
   - Report harassment to the appropriate authority.
   - Avoid prejudicial language and actions that imply blame.
   - Share accurate information and be cautious about images that reinforce stereotypes.
   - Share stories of people experiencing stigma and the damage it has done.

[49] https://www.cdc.gov/coronavirus/2019-ncov/daily-life-coping/reducing-stigma.html

111. Will COVID-19 persist next year as a pandemic?

Key Messages/Shorter Answer (Soundbite):

1. *COVID-19 is likely to persist as a pandemic through the winter of 2020-21.*
2. *The COVID-19 pandemic can be shortened by reducing new cases through widespread testing, preventive medicines, contact tracing, treatments, and vaccines.*
3. *Experts believe that the COVID-19 pandemic can be shortened with preventive behaviors that reduce new cases.*

Longer Answer:

1. ***COVID-19 is likely to persist as a pandemic through the winter of 2020-21.***
    - Since infections continue to happen among many people worldwide and are expected to continue to occur at high rates over the winter, COVID-19 will likely be considered a pandemic for many more months.
    - In the near future, the world could enter a "post-pandemic" period, which means the virus that causes COVID-19 becomes endemic — that is, circulating in the world and causing infections similar to seasonal flu and colds.
    - If the number of cases and places with COVID-19 decreases significantly, it is unlikely that COVID-19 will persist as a pandemic.
    - The World Health Organization will likely continue to classify COVID-19 as a pandemic until there are no longer large outbreaks of new cases and deaths in many countries for a specified time period.
2. ***The COVID-19 pandemic can be shortened by reducing new cases through widespread testing, preventive medicines, contact tracing, treatments, and vaccines.***[50]
    - Most experts believe the COVID-19 pandemic will end with herd immunity.
        - Most experts believe herd immunity is achieved when 60-70% of the population has immunity to the virus that causes COVID-19.
        - Herd immunity can be achieved through both natural infection and vaccination.
    - Experts believe the COVID-19 pandemic will be shortened with a safe and effective vaccine.
        - It is likely at least six months before a safe and effective vaccine becomes widely available.
    - Experts believe that the COVID-19 pandemic can be shortened with innovations including better air circulation, facial scanning, anti-viral electrostatic coatings, and touchless knobs.
3. ***Experts believe that the COVID-19 pandemic can be shortened with preventive behaviors that reduce new cases.***
    - Everyone should follow preventive practices guidance, especially social distancing.
    - People should wash their hands often; avoid touching their eyes, nose, and mouth; and cover coughs and sneezes.
    - People should wear masks in public to help prevent the spread of COVID-19.
    - People should clean frequently touched surfaces with regular household cleaners.
    - People should follow expert guidance and avoid dangerous, unproven myths and rumors.

[50] https://www.cdc.gov/coronavirus/2019-ncov/cases-updates/summary.html

112. How far can the virus that causes COVID-19 travel in the air?

Key Messages/Shorter Answer (Soundbite):

1. *The virus that causes COVID-19 is transmitted primarily by airborne droplets of different sizes.*
2. *The virus that causes COVID-19 can also be carried by tiny airborne droplets called aerosols.*
3. *Surfaces potentially contaminated with the virus must be thoroughly disinfected.*

Longer Answer:

1. ***The virus that causes COVID-19 is transmitted primarily by airborne droplets of different sizes.***[51] [52]
   - COVID-19 can be spread by airborne transmission.
   - Large airborne droplets with the virus that causes COVID-19 are typically expelled from an infected person by coughs or sneezes.
   - Droplets that carry COVID-19 can range in size from large ones that travel up to 6 feet and fall to the ground to small aerosols that can stay aloft and travel as far as 20 feet.
   - Masks can help reduce the transmission of airborne droplets carrying COVID-19.
2. ***The virus that causes COVID-19 can also be carried by tiny airborne droplets called aerosols.***[53]
   - Because of their small size and launch characteristics from a sneeze, experts believe that a small airborne droplet can travel as far as 20 feet.
     - Small airborne droplets are produced when breathing, speaking, coughing, or sneezing.
   - Even though a small airborne droplet with the virus that causes COVID-19 is detectable in the air, it does not mean that there is enough virus present to infect someone.
     - If small airborne droplets are shown to play a significant role in spreading COVID-19, a 6-foot distance between persons would not be completely protective.
   - Concerns about small airborne droplets are greatest in settings where virus counts are high and close, sustained contact takes place.
   - Environmental conditions, such as air currents, determine how far droplets can travel.
   - The coronavirus can linger in the air as small droplets for minutes to hours, especially in stagnant indoor air.
3. ***Surfaces potentially contaminated with the virus must be thoroughly disinfected.***
   - Frequent cleaning and disinfection of surfaces is the best way to prevent viral respiratory illnesses in households and community settings.
   - Disinfecting of high-use surfaces is very effective for preventing illness.
     - Surfaces should be sanitized with soap, disinfecting sprays, or wipes.
   - Frequent cleaning surfaces should be one of many personal hygiene practices, including handwashing, to prevent virus transmission.
   - People are more likely to become infected with COVID-19 from contact with respiratory droplets than from surface transmission.

[51] https://www.nature.com/articles/d41586-020-00974-w

[52] https://doi.org/10.17226/25769

[53] https://academic.oup.com/cid/article/doi/10.1093/cid/ciaa939/5867798

200 Series: Travel Questions

201. How effective are travel restrictions and quarantines?

Key Messages/Shorter Answer (Soundbite):

1. *Travel restrictions and quarantines help limit the spread of contagious disease.*
2. *Travel restrictions and quarantine measures can help public health authorities control outbreaks.*
3. *Effective travel restrictions and quarantine alone may not stop disease spread.*

Longer Answer:

1. ***Travel restrictions and quarantines help limit the spread of contagious disease.***
   - Travel restrictions and quarantines give public health officials important tools for limiting the person-to-person spread of a contagious disease.
   - The primary purpose of a travel restriction is to restrict the geographical movement of people who are, or may be, infected with an infectious disease and thus limit the geographic range of contact with the disease.
   - Quarantines separate people who might be infected or who may have been exposed to an infectious disease from others in the community.
2. ***Travel restrictions and quarantine measures can help public health authorities control outbreaks.***
   - Travel restrictions and quarantines help limit and slow the transmission of cases in the general population by reducing exposures to infected individuals.
   - Travel restrictions and quarantines facilitate contact tracing — the process of tracking down individuals who were in contact and may have been infected by someone confirmed to be sick.
   - For a new virus, travel restrictions and quarantine measures give scientists more time to understand the virus, develop testing, and explore treatment options.
   - Travel restrictions and quarantines help reduce strain on treatment facilities and healthcare providers.
3. ***Effective travel restrictions and quarantine alone may not stop disease spread.***
   - Travel restrictions and quarantines are typically less effective when people are infected with a disease but do not display signs or symptoms of illness.
   - Travel restrictions can limit and restrict the movement of needed and critical goods and services, such as prescription drugs, personal protective equipment, and healthcare personnel.
   - Travel restrictions and quarantines can result in stigmatizing people.[54]
   - Restrictions such as targeted social distancing, school closures, or canceling large public gatherings can help limit the spread of disease.

[54] https://www.cdc.gov/coronavirus/2019-ncov/daily-life-coping/reducing-stigma.html

202. Should people be concerned about travel within the U.S.?

Key Messages/Shorter Answer (Soundbite):

1. *It is understandable that people are concerned about traveling.*
2. *Traveling increases the chances of getting COVID-19.*
3. *When traveling, people should practice good hygiene and minimize close contact with others.*

Longer Answer:

1. ***It is understandable that people are concerned about traveling.***
    - COVID-19 is a new and potentially deadly disease infecting large numbers of people in numerous countries.
    - As COVID-19 continues to spread, travel operations, advisories, and guidance are changing.
    - People should avoid all non-essential travel, especially where transmission is widespread.
        - People should continue to stay informed by following the Centers for Disease Control and Prevention (CDC) and U.S. State Department travel websites[55] for the latest information.[56]
2. ***Traveling increases the chances of getting COVID-19.***
    - Federal and state guidelines advise against non-essential travel due to the COVID-19 outbreak.
    - Travel presents an opportunity for getting sick due to an often crowded and confined environment.
    - Cases of COVID-19 have been reported in all 50 states and many territories, and many areas are experiencing community spread of the disease.
    - If people have questions about their destination, they should check public health department websites for current information.
    - The CDC recommends that those at higher risk for COVID-19, such as older adults and people with underlying conditions, avoid all cruise travel and non-essential air travel.
3. ***When traveling, people should practice good hygiene and minimize close contact with others.***
    - Travelers should do their best to avoid close contact (within six feet) of people who are sick, especially those who are coughing and sneezing.
    - Travelers should take precautionary actions, including frequent hand washing, use of hand sanitizer, covering coughs and sneezes, and avoiding touching their eyes, nose, and mouth.
    - Travelers should use alcohol wipes to clean surfaces such as tray tables, seat belts, and armrests.
    - People who are sick with fever, cough, or have difficulty breathing should postpone traveling.

[55] https://travel.state.gov/content/travel/en/traveladvisories/traveladvisories.html/

[56] https://www.cdc.gov/coronavirus/2019-ncov/travelers/index.html

203. How are international travel restriction decisions made?

Key Messages/Shorter Answer (Soundbite):

1. *International travel restrictions must balance the risk of exposure against the costs of disrupting the economy.*
2. *The U.S. has imposed international travel restrictions as a result of widespread transmission of COVID-19.*
3. *International travel restrictions are being imposed to limit the spread of COVID-19.*

Longer Answer:

1. ***International travel restrictions must balance the risk of exposure against the costs of disrupting the economy.***
    - Free movement of persons and goods between the U.S. and other countries is vital to the global economy.
    - Travel restrictions can adversely impact the ability of Americans traveling abroad to return to the U.S. without undue interference.
    - Severe travel restrictions usually are imposed only when the risks arising from the free movement of goods and persons outweigh the benefits of free movement.
2. ***The U.S. has imposed international travel restrictions as a result of widespread transmission of COVID-19.***
    - Balancing of the risks, costs, and benefits of travel restrictions is reassessed and re-evaluated as conditions change.
    - U.S. travel restrictions may change as more is known about the spread of COVID-19 and why there is so much variability in sickness.
3. ***International travel restrictions are being imposed to limit the spread of COVID-19.***
    - Travel restriction information is continually updated at the CDC and U.S. State Department websites.[57] [58]
    - U.S. travel restrictions may change as outbreaks of COVID-19 change.
    - Travel health warnings and notices can be issued to discourage non-essential travel to countries where widespread transmission is taking place.
    - U.S. travel restrictions may change as more is known about the extent to which a person infected with COVID-19 and experiencing no symptoms can spread the disease to others.

[57] https://www.cdc.gov/coronavirus/2019-ncov/travelers/index.html

[58] https://travel.state.gov/content/travel/en/traveladvisories/traveladvisories.html/

204. Why has the U.S. adopted international travel restrictions that are more stringent than those recommended by the World Health Organization?

Key Messages/Shorter Answer (Soundbite):

1. *Each country must weigh many factors in setting COVID-19 international travel restrictions.*
2. *WHO has called on countries not to impose excessive COVID-19 international travel restrictions.*
3. *The U.S. has adopted an individualized approach to setting COVID-19 international travel restrictions.*

Longer Answer:

1. ***Each country must weigh many factors in setting COVID-19 international travel restrictions.***
   - Risk factors include the number of cases, deaths from the cases, the ease of transmission, and the effectiveness of risk management controls.
   - Geographic factors include proximity between the countries, the length of a common border, and the ease of evading restrictions.
   - Economic factors include adverse effects on the trade of needed goods and services.
   - Risk and other factors important to one country may be different from those important to other countries.
2. ***WHO has called on countries not to impose excessive COVID-19 international travel restrictions.***
   - Excessive travel restrictions may encourage evasion, deliberate self-concealment of illness, and illegal border crossings to avoid scrutiny and possible detection.
   - Excessive travel restrictions can limit and restrict the movement of needed goods and services, including personal protective equipment.
   - Excessive travel restrictions may result in stigmatizing the sick and impinging on civil liberties.
3. ***The U.S. has adopted an individualized approach to setting COVID-19 international travel restrictions.***[59] [60]
   - The U.S. balances risks and other factors in setting COVID-19 travel restrictions.
   - The U.S. has a risk-based program for screening international travelers.

[59] https://www.cdc.gov/coronavirus/2019-ncov/travelers/index.html

[60] https://travel.state.gov/content/travel/en/traveladvisories/traveladvisories.html/

205. Why is the U.S. restricting travel from some countries but not from other countries with COVID-19 cases?

Key Messages/Shorter Answer (Soundbite):

1. *The U.S. has set international travel restrictions on countries with COVID-19 outbreaks.*
2. *In setting international travel restrictions, experts balance risks, costs, and benefits.*
3. *The CDC has established risk-based criteria for setting international travel restrictions.*

Longer Answer:

1. ***The U.S. has set international travel restrictions on countries with COVID-19 outbreaks.***
   - The U.S. government provides a daily update of destinations to be avoided.[61]
   - U.S. border patrol agents are asking travelers about their recent travel history and passing out educational materials.
     - CDC has deployed additional staff to screen travelers at entry points.
   - CDC has asked healthcare providers to be alert for travelers from countries with significant COVID-19 outbreaks.
2. ***In setting international travel restrictions, experts balance risks, costs, and benefits.***
   - Excessive travel restrictions may encourage evasion, deliberate self-concealment of illness, and illegal border crossings to avoid scrutiny and possible detection.
   - Excessive travel restrictions can limit and restrict the movement of needed goods and services.
   - Excessive travel restrictions may result in stigmatizing populations and impinging on civil liberties.
   - U.S. travel restrictions may change as greater clarity is gained about COVID-19.
3. ***The CDC has established risk-based criteria for setting international travel restrictions.***
   - The CDC bases COVID-19 risk levels for foreign countries and U.S. territories on two sets of data (primary and secondary criteria)[62]
     - Primary: virus transmission rates at the destination
     - Secondary: healthcare capacity and public health infrastructure at the destination
   - Travelers should consult the CDC and State Department travel information web pages for current information.[61] [63]

[61] https://www.cdc.gov/coronavirus/2019-ncov/travelers/index.html

[62] https://www.cdc.gov/coronavirus/2019-ncov/travelers/how-level-is-determined.html

[63] https://travel.state.gov/content/travel/en/traveladvisories/traveladvisories.html/

300 Series: Protection Questions

301. What should I do if I had close contact with someone with COVID-19?

Key Messages/Shorter Answer (Soundbite):

1. *People should inform their healthcare provider about close contact with someone with COVID-19.*
2. *People should fully educate themselves about person-to-person transmission of the virus that causes COVID-19.*
3. *People should call their healthcare provider if they notice symptoms of COVID-19.*

Longer Answer:

1. ***People should inform their healthcare provider about close contact with someone with COVID-19.***[64]
   - People should monitor themselves for symptoms of COVID-19 for 14 days after close contact.
   - People should call their healthcare provider and tell them about their close contact with the infected person and ask for guidance.
   - Healthcare providers will work with their local or state public health department and the Centers for Disease Control and Prevention (CDC) to determine testing needs.
   - If seeing a healthcare provider is not possible, people can check with their local or state health department for contact information, the CDC website, the CDC screening App, or contact the CDC (800-CDC-INFO) to get advice on next steps.
2. ***People should fully educate themselves about person-to-person transmission of the virus that causes COVID-19.***[65] [66]
   - Person-to-person spread occurs mainly via respiratory droplets produced during exhalation, e.g., breathing, speaking, singing, coughing, and sneezing.
   - Person-to-person spread usually happens with close contact with an infected person.
   - Much is unknown about how the virus spreads, and current knowledge is primarily based on what is known about similar viruses.
3. ***People should call their healthcare provider if they notice symptoms of COVID-19.***[61] [64] [67]
   - People should watch for signs and symptoms of COVID-19 infection, such as fever, dry cough, fatigue, and shortness of breath.
     - COVID-19 symptoms may include chills, repeated shaking with chills, muscle pain, headache, sore throat, congestion, runny nose, and loss of taste or smell.
   - If people notice COVID-19 symptoms, they should first call their healthcare provider.
   - If people notice COVID-19 symptoms, they should seek advice before traveling.
   - People should follow expert advice, verify information, and avoid dangerous myths and rumors.[68] [69]

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[64] https://www.doh.wa.gov/Portals/1/Documents/1600/coronavirus/COVIDexposed.pdf

[65] https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/how-covid-spreads.html

[66] https://www.who.int/news-room/q-a-detail/q-a-coronaviruses

[67] https://www.cdc.gov/coronavirus/2019-ncov/if-you-are-sick/steps-when-sick.html

[68] https://www.who.int/emergencies/diseases/novel-coronavirus-2019/advice-for-public/myth-busters

[69] https://www.hopkinsmedicine.org/health/conditions-and-diseases/coronavirus/2019-novel-coronavirus-myth-versus-fact

302. What can people do to prevent infection with COVID-19?

Key Messages/Shorter Answer (Soundbite):

1. *The best way to prevent infection is by avoiding exposure to the virus.*
2. *Masks can help reduce the spread of the virus from people who are infected, including those who do not have symptoms.*
3. *Everyday basic hygiene is important to prevent infection.*

Longer Answer:

1. ***The best way to prevent infection is by avoiding exposure to the virus.***[70] [71] [72]
   - Avoid close contact (approximately 6 feet) with people who are sick.
   - If you are sick, stay home and limit contact with others to avoid spreading the virus.
   - Avoid non-essential travel, especially to places where widespread transmission is occurring.
   - Avoiding exposure slows the spread of COVID-19 and reduces strain on the healthcare system.
2. ***Masks can help reduce the spread of the virus from people who are infected, including those who do not have symptoms.***[70]
   - Masks prevent the person wearing it from spreading respiratory droplets when speaking, sneezing, or coughing.
   - Since many people who are infected are not aware of their infection, it is recommended that all people wear a mask in public settings.
   - If everyone wears a mask when out in public, such as going to the grocery store, the risk of being exposed to COVID-19 can be reduced for the community.
   - People known to be sick with COVID-19 should wear a mask and separate themselves from others as much as possible.
   - People should wear a mask and eye protection when caring for someone with COVID-19 infection.[71]
3. ***Everyday basic hygiene is important to prevent infection.***[73]
   - Wash your hands often with soap and water for at least 20 seconds.
     - Wash your hands, especially after going to the toilet, before eating, and after coughing, sneezing, and blowing your nose.
     - If soap and water are not available, use a hand sanitizer with at least 60% alcohol.
   - Avoid touching your eyes, nose, and mouth with unwashed hands.
   - Cover your coughs and sneezes with a sleeve or tissue (and then throw away the tissue).
   - Clean frequently touched surfaces around the house with regular household cleaners.
   - Follow expert advice, verify information, and avoid dangerous myths and rumors.[74] [75]

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[70] https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/diy-cloth-face-coverings.html

[71] https://www.who.int/news-room/q-a-detail/q-a-coronaviruses

[72] https://www.cdc.gov/coronavirus/2019-ncov/travelers/index.html

[73] https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/prevention.html

[74] https://www.who.int/emergencies/diseases/novel-coronavirus-2019/advice-for-public/myth-busters

[75] https://www.cdc.gov/coronavirus/2019-ncov/if-you-are-sick/steps-when-sick.html

303. Are masks useful to prevent COVID-19?

Key Messages/Shorter Answer (Soundbite):

1. *Masks may help reduce the spread of the virus from people who are infected, including those who do not have symptoms (asymptomatic people).*
2. *People should wear masks in public to help prevent the spread of COVID-19.*
3. *Even if you wear a mask in public, it is important that you also use other preventive measures.*

Longer Answer:

1. ***Masks may help reduce the spread of the virus from people who are infected, including those who do not have symptoms (asymptomatic people).***[76] [77] [78]
    - Masks prevent the person wearing it from spreading respiratory droplets when speaking, sneezing, or coughing.
    - Since people can possibly spread the virus even if they don't have symptoms (asymptomatic people), wearing a face covering can protect others.
    - A cloth face covering is a type of non-surgical mask, typically made of fabric, that fits snugly against the side of the face, is secure, may include multiple layers of fabric, allows for breathing without restriction, and can be laundered and machine dried.
    - Surgical masks and N95 respirators should not be worn by the healthy general public because they are critical supplies reserved for healthcare workers.
2. ***People should wear masks in public to help prevent the spread of COVID-19.***[79]
    - Since many people who are infected are not aware of their infection (asymptomatic people), it is recommended that all people wear a mask in public settings.
    - Even if a person has tested negative for COVID-19, wearing a mask in public is recommended because a person's infection status can change quickly and unknowingly.
    - If everyone wears a mask when out in public, such as going to the grocery store, the risk of being exposed to COVID-19 can be reduced for the community.
    - If a person knows they are sick, they can also wear a mask while at home.
3. ***Even if you wear a mask in public, it is important that you also use other preventive measures.***[72] [77]
    - You should still stay at least six feet away from other people when in public, even while wearing a mask.
    - Wash your hands often with soap and water for at least 20 seconds.
        - If soap and water are not available, use a hand sanitizer with at least 60% alcohol.
    - Avoid touching your face with unwashed hands; cover your coughs and sneezes.
    - Clean frequently touched surfaces around the house with regular household cleaners.

[76] https://www.cdc.gov/coronavirus/2019-ncov/if-you-are-sick/steps-when-sick.html

[77] https://www.who.int/news-room/q-a-detail/q-a-coronaviruses

[78] https://www.who.int/emergencies/diseases/novel-coronavirus-2019/advice-for-public/when-and-how-to-use-masks

[79] https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/index.html

304. What type of mask may be effective against COVID-19?

Key Messages/Shorter Answer (Soundbite):

1. *Masks help prevent the spread of COVID-19.*
2. *Surgical masks and N95 respirators are often used by healthcare personnel when caring for an infected patient.*
3. *Even when wearing a face covering, you should still practice basic hygiene.*

Longer Answer:

1. ***Masks help prevent the spread of COVID-19.***[80] [81]
   - A mask helps to prevent contamination of the surrounding area when an infected person coughs or sneezes.
   - People should wear masks in public to help prevent the spread of COVID-19 because even people without symptoms also appear capable of spreading the virus.
   - A cloth face covering is a type of mask, typically made of fabric, that fits snugly against the side of the face, is secure, may include multiple layers of fabric, allows for breathing without restriction, and can be laundered and machine dried.
   - Masks with vents or one-way (exhalation) valves are not recommended as these vents allow air to be exhaled, which can result in respiratory droplets that can reach others.
2. ***Surgical masks and N95 respirators are often used by healthcare personnel when caring for an infected patient.***[77]
   - Surgical masks are flat or pleated and are attached to the head with straps.
     - A surgical mask is a loose-fitting, often pleated facepiece that is fluid-resistant and provides the wearer protection against large droplets, splashes, or sprays of body fluids.
   - An N95 respirator is a tight-fitting personal protective device and requires training and testing to ensure a proper seal.
   - The N95 respirator filters out at least 95% of particles in the air, including small particles.
   - In light of limited supply, N95 respirators should be prioritized for those most in need.
   - A surgical mask or N95 respirator should be used by people in high-risk COVID-19 settings.
3. ***Even when wearing a face covering, you should still practice basic hygiene.***[76] [81] [82]
   - Wash your hands often with soap and water for at least 20 seconds.
     - Wash your hands, especially after going to the toilet, before eating, and after coughing, sneezing, and blowing your nose.
     - If soap and water are not available, use a hand sanitizer with at least 60% alcohol.
   - Avoid touching your eyes, nose, and mouth with unwashed hands.
   - Cover your coughs and sneezes with a sleeve or tissue.
   - Clean frequently touched surfaces around the house with regular household cleaners.
   - Follow expert advice, verify information, and avoid dangerous myths and rumors.[82]

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[80] https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/diy-cloth-face-coverings.html

[81] https://www.who.int/emergencies/diseases/novel-coronavirus-2019/advice-for-public/when-and-how-to-use-masks

[82] https://www.who.int/emergencies/diseases/novel-coronavirus-2019/advice-for-public/myth-busters

305. Is there a sufficient supply of surgical masks and N95 respirators?

Key Messages/Shorter Answer (Soundbite):

1. *Public health officials are working to ensure adequate supply for critical personnel.*
2. *Surgical masks and N95 respirators should be used where recommended.*
3. *Given the limited availability of surgical masks and N95 respirators, other masks help prevent infection in healthy people.*

Longer Answer:

1. ***Public health officials are working to ensure adequate supply for critical personnel.***[83] [84] [85] [86]
   - Supplies of N95 respirators — 95% effective in filtering infectious agents — can become depleted when in exceptionally high demand.
   - Supplies and demand for surgical masks and N95 respirators will vary by location.
     - It is likely that high demand and high need may cause shortages in some places.
   - Countries, public health officials, and suppliers are continually and closely monitoring the availability of surgical masks as well as N95 respirators.
2. ***Surgical masks and N95 respirators should be used where recommended.***[76] [80]
   - Masks should be worn by people taking care of someone with COVID-19.
   - N95 respirators are recommended for high-risk healthcare settings.
   - Hoarding of N95 respirators could prevent the people who need them most from getting them.
3. ***Given the limited availability of surgical masks and N95 respirators, other masks help prevent infection in healthy people.***[80] [83]
   - People should wear masks in public to help prevent the spread of COVID-19 because even people without symptoms also appear capable of spreading the virus.
   - Masks should be worn by people who show symptoms of COVID-19 to help prevent the spread of the disease to others.
   - The use of surgical masks and N95 respirators are crucial for health workers and people who are taking care of someone in high-risk settings.
   - Unnecessary use of N95 respirators increases the likelihood of a limited supply.
   - Follow expert advice, verify information, and avoid dangerous myths and rumors.[82]

[83] https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/prevention.html

[84] https://www.cdc.gov/coronavirus/2019-ncov/hcp/respirator-use-faq.html

[85] https://www.who.int/emergencies/diseases/novel-coronavirus-2019/advice-for-public/when-and-how-to-use-masks

[86] https://www.cidrap.umn.edu/news-perspective/2020/02/unmasked-experts-explain-necessary-respiratory-protection-covid-19

400 Series: Transmission Questions

401. How is COVID-19 acquired?

Key Messages/Shorter Answer (Soundbite):

1. *The virus that causes COVID-19 spreads mainly from person-to-person.*
2. *We continue to learn about how COVID-19 is acquired.*
3. *The best way to prevent infection is by avoiding exposure to the virus.*

Longer Answer:

1. The virus that causes COVID-19 spreads mainly from person-to-person.[87] [88]

- Person-to-person spread usually happens after close contact (within 6 feet) with an infected person, mainly via respiratory droplets produced when an infected person coughs, sneezes, or speaks.
- Data suggests that COVID-19 may be spread by people who are not showing symptoms, including in the days before symptoms appear.
- Research shows coronavirus can be spread not just by sneezes or coughs but also by speaking, or possibly even just breathing.
- A person may be able to get COVID-19 by touching a surface or object with high virus content and then touching their mouth, nose, or their eyes.
- In general, the longer and more closely a person interacts with others, the higher the risk of COVID-19 spread.

2. We continue to learn about how COVID-19 is acquired.[89]

- Current knowledge about COVID-19 is based in part on what is known about other similar coronaviruses.
- Since the virus that causes COVID-19 is a novel coronavirus, the evolving pandemic continues to generate unanswered questions.
- Experts believe three key questions regarding COVID-19 are: the extent that transmission is seasonal, whether long-lasting immunity is induced, and the role children play.

3. The best way to prevent infection is by avoiding exposure to the virus.[83]

- People should avoid close contact with people who are sick.
- People should wash their hands often with soap and water for at least 20 seconds, especially after going to the toilet, before eating, and after coughing, sneezing, or blowing their nose.
  - If soap and water are not available, use a hand sanitizer with at least 60% alcohol.
- People should practice social distancing by keeping at least six feet between themselves and others whenever possible.
- People should wear a mask when around others.
- People should avoid touching their eyes, nose, and mouth with unwashed hands.
- People should follow expert advice, verify information, and avoid dangerous myths and rumors.[90]

[87] https://www.cdc.gov/coronavirus/2019-ncov/downloads/2019-ncov-factsheet.pdf

[88] https://www.who.int/news-room/q-a-detail/q-a-coronaviruses

[89] https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/how-covid-spreads.html

[90] https://www.who.int/emergencies/diseases/novel-coronavirus-2019/advice-for-public/myth-busters

402. Can a person spread the virus that causes COVID-19 even if they have no symptoms?

Key Messages/Shorter Answer (Soundbite):

1. *People can infect others with the virus that causes COVID-19 before showing symptoms.*
2. *Asymptomatic transmission of COVID-19 supports calls for wider testing.*
3. *People are thought to be highly contagious when they are most symptomatic (the sickest).*

Longer Answer:

1. ***People can infect others with the virus that causes COVID-19 before showing symptoms.***[91]
   - There have been credible reports that people have acquired COVID-19 from infected people who did not have noticeable symptoms.
   - Transmission of COVID-19 can occur in the days following infection while being pre-symptomatic and asymptomatic.
   - There is still much to be learned about how COVID-19 is acquired.
2. ***Asymptomatic transmission of COVID-19 supports calls for wider testing.***[92] [93] [94] [95] [96] [97]
   - Experts have called for improved COVID-19 testing capabilities with results quickly available.
     - To improve COVID-19 testing, facilities need adequate supplies and trained personnel.
   - Experts are calling for widespread COVID-19 testing to facilitate identification, isolation, treatment, and contact tracing.
   - Experts believe the most important resource for slowing COVID-19 will be the public, whose buy-in and sense of personal responsibility is crucial.
3. ***People are thought to be highly contagious when they are most symptomatic (the sickest).***[94] [98]
   - COVID-19 is most likely acquired from someone who is actively sick.
   - Person-to-person spread frequently happens after close contact (within 6 feet) with an infected person.
     - Most experts believe that the virus that causes COVID-19 is transmitted primarily by large airborne droplets that typically travel no more than 6 feet.
     - Droplets that carry COVID-19 can range in size from large ones that fall to the ground to small ones that stay aloft.
     - Small airborne droplets can travel as far as 20 feet.
   - Most viral respiratory infections, including those caused by coronaviruses, are spread through the coughs and sneezes of infected people who have symptoms.
   - People should follow expert advice, verify information, and avoid dangerous myths and rumors.

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[91] https://www.cdc.gov/mmwr/volumes/69/wr/mm6914e1.htm

[92] https://www.cdc.gov/coronavirus/2019-ncov/symptoms-testing/testing.html

[93] https://www.cdc.gov/coronavirus/2019-nCoV/index.html

[94] https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/how-covid-spreads.html

[95] https://www.who.int/news-room/q-a-detail/q-a-coronaviruses

[96] https://www.nih.gov/health-information/coronavirus

[97] https://www.nejm.org/coronavirus

[98] https://www.who.int/emergencieshgjk/diseases/novel-coronavirus-2019/advice-for-public/myth-busters

403. How efficient is the spread of COVID-19?

Key Messages/Shorter Answer (Soundbite):

1. *Data suggest that each person with COVID-19 may infect up to two or three additional people if no control measures are used.*
2. *COVID-19 may spread before people show symptoms.*
3. *Person-to-person infection of COVID-19 usually happens after close contact with an infected person.*

Longer Answer:

1. ***Data suggest that each person with COVID-19 may infect up to two or three additional people if no control measures are used.***[99] [100] [101] [102]
   - How easily a virus spreads depends on the properties of the virus and the environment.
   - The virus that causes COVID-19 is more contagious than most flu strains but less contagious than measles.
   - The virus that causes COVID-19 seems to be acquired easily in confined spaces.
2. ***COVID-19 may spread before people show symptoms.***[96] [103] [104] [105]
   - Experts believe people are most contagious when they are sickest and producing the most droplets, but transmission can occur from people without symptoms of COVID-19.
   - Experts believe that transmission of the virus that causes COVID-19 can occur before clinical symptoms or in association with the very first mild symptoms.
   - People can acquire COVID-19 from infected people who have no noticeable symptoms.
3. ***Person-to-person infection of COVID-19 usually happens after close contact with an infected person.***[87] [106]
   - Person-to-person spread of COVID-19 usually happens between people within 6 feet.
     - Most experts believe that the virus that causes COVID-19 is transmitted primarily by large airborne droplets that typically travel no more than 6 feet.
   - The virus that causes COVID-19 can stay aloft for hours in tiny droplets, called aerosols, but it is not clear how large a role aerosolized virus plays in transmission.
     - Evidence indicates even breathing, singing, and speaking may play a role in transmission.
   - Person-to-person acquisition occurs mainly via respiratory droplets produced when an infected person coughs or sneezes or through droplets of saliva or discharge from the nose.
   - A person may be able to get COVID-19 by touching a surface or object with high virus content and then touching their mouth, nose, or their eyes.

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[99] https://www.who.int/news-room/detail/30-01-2020-statement-on-the-second-meeting-of-the-international-health-regulations-(2005)-emergency-committee-regarding-the-outbreak-of-novel-coronavirus-(2019-ncov)

[100] https://www.cidrap.umn.edu/news-perspective/2020/02/study-72000-covid-19-patients-finds-23-death-rate

[101] https://www.nejm.org/doi/full/10.1056/NEJMe2002387

[102] https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/how-covid-spreads.html

[103] https://jamanetwork.com/journals/jama/fullarticle/2762028

[104] https://www.nejm.org/doi/10.1056/NEJMc2004973

[105] https://www.thelancet.com/journals/laninf/article/PIIS1473-3099(20)30230-9/fulltext

[106] https://academic.oup.com/cid/article/doi/10.1093/cid/ciaa939/5867798

404. Can the virus that causes COVID-19 be spread from contaminated surfaces?

Key Messages/Shorter Answer (Soundbite):

1. *A person may be able to get COVID-19 by touching a surface or object with high virus content.*
2. *Clean and disinfect frequently touched objects and surfaces.*
3. *Most often, spread happens among close contacts through respiratory droplets.*

Longer Answer:

1. ***A person may be able to get COVID-19 by touching a surface or object with high virus content.***[107] [108] [109]
    - Spreading of COVID-19 may happen by touching a contaminated surface with high virus content and then touching their eyes, nose, or mouth.
    - The CDC does not believe that the virus spreads easily from surfaces and objects.
    - Wash your hands often with soap and water for at least 20 seconds, especially after going to the toilet, before eating, and after coughing, sneezing, or blowing your nose.
        - If soap and water are not available, use a hand sanitizer with at least 60% alcohol.
    - Though the virus that causes COVID-19 can exist for hours to days on surfaces, it is unknown how long the virus remains infectious.
        - COVID-19 viral genetic material was identified on surfaces in cruise ship cabins of symptomatic and asymptomatic infected passengers up to 17 days after being vacated.
2. ***Clean and disinfect frequently touched objects and surfaces.***[110]
    - Simple disinfectants can help prevent the virus that causes COVID-19 from infecting people.
    - If you are sick with COVID-19, do not share personal items with other people in your home.
    - Personal items used by a person with COVID-19 should be thoroughly washed with soap.
    - Research has shown that although the virus can be detected on some surfaces for up to a day, the reality is that the virus levels drop off quickly.
3. ***Most often, spread happens among close contacts through respiratory droplets.***[111]
    - Acquisition of COVID-19 occurs primarily through respiratory droplets produced when an infectious person coughs or sneezes.
    - Close contact is defined as being within 6 feet of a person with COVID-19.
    - Close contact can occur while caring for, living with, visiting, or sharing a healthcare waiting area with a person with COVID-19.
    - Surfaces contaminated with the virus that causes COVID-19 are not thought to be the primary way the virus is spread.
    - Follow expert advice, verify information, and avoid dangerous myths and rumors.[112]

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[107] https://www.who.int/news-room/q-a-detail/q-a-coronaviruses

[108] https://www.journalofhospitalinfection.com/article/S0195-6701(20)30046-3/fulltext

[109] https://www.cdc.gov/mmwr/volumes/69/wr/mm6912e3.htm?s_cid=mm6912e3_w

[110] https://www.cdc.gov/coronavirus/2019-ncov/if-you-are-sick/steps-when-sick.html

[111] https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/how-covid-spreads.html

[112] https://www.who.int/emergencies/diseases/novel-coronavirus-2019/advice-for-public/myth-busters

405. Can COVID-19 be spread in the air like measles or tuberculosis?

Key Messages/Shorter Answer (Soundbite):

1. *Measles and tuberculosis are primarily spread via small airborne droplets.*
2. *Unlike measles and tuberculosis, the virus that causes COVID-19 is transmitted primarily by large airborne droplets.*
3. *Airborne transmission of COVID-19 is most likely in contained settings.*

Longer Answer:

1. ***Measles and tuberculosis are primarily spread via small airborne droplets.***
   - The measles virus is transmitted by direct contact with infectious droplets or by airborne spread when an infected person breathes, coughs, or sneezes.
   - Tuberculosis bacteria transmission occurs when a person inhales small droplets containing bacteria that travel via the mouth or nasal passages deep into the lungs.
2. ***Unlike measles and tuberculosis, the virus that causes COVID-19 is transmitted primarily by large airborne droplets.***[113] [114]
   - Droplets that carry COVID-19 can range in size from large ones that fall to the ground to small ones that stay aloft.
   - Large airborne droplets with COVID-19 are typically expelled when coughing or sneezing.
   - Large airborne droplets with COVID-19 typically travel no more than 6 feet.
3. ***Airborne transmission of COVID-19 is most likely in contained settings.*** [115] [116] [117] [118]
   - Concern about airborne transmission of COVID-19 is greatest in contained settings where virus counts are high and where close, sustained contact takes place.
     - Concerns about airborne transmission are particularly high in settings where noise interferes with conversation and encourages getting closer than 6 feet to converse.
     - Airborne transmission is of particular concern where close conversation, shouting, and singing occur, especially when people remove masks.
   - Research indicates that small droplet transmission of the virus that causes COVID-19 is plausible since the virus can remain viable and infectious in aerosols for hours.
     - Small airborne droplets are emitted when a person is breathing and speaking.
   - Because of launch characteristics from a sneeze, a small airborne droplet containing the virus that causes COVID-19 can travel as far as 20 feet.
   - Simply because a small airborne droplet with the virus that causes COVID-19 is detectable does not mean that there is enough virus present to infect someone.

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[113] https://www.nature.com/articles/d41586-020-00974-w

[114] https://doi.org/10.17226/25769

[115] https://www.nejm.org/doi/10.1056/NEJMc2004973

[116] https://www.who.int/news-room/commentaries/detail/modes-of-transmission-of-virus-causing-covid-19-implications-for-ipc-precaution-recommendations

[117] https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4517735/

[118] https://academic.oup.com/cid/article/doi/10.1093/cid/ciaa939/5867798

406. Should schools and social gatherings be canceled?

Key Messages/Shorter Answer (Soundbite):

1. *Social distancing is being implemented by closing schools, revising schedules, rearranging layouts, and limiting social gatherings.*
2. *Targeted social distancing in schools and social gatherings helps slow the spread of COVID-19.*
3. *Schools and social gatherings should adhere to government-issued guidance on social distancing.*

Longer Answer:

1. ***Social distancing is being implemented by closing schools, revising schedules, rearranging layouts, and limiting social gatherings.***
    - Social distancing is the public health practice of putting distance between people to help prevent the spread of a disease.
        - Most exposures to coronavirus occur after close contact with infected persons.
    - Social distancing measures include closing schools, rearranging seating, and canceling public gatherings like church services, sporting events, conferences, and festivals.
    - Many communities around the U.S. have implemented social distancing.
    - Communities should work with their state, territorial, and local health departments to determine the risk and impact of disease in each of their communities and to prepare for possible challenges ahead.
2. ***Targeted social distancing in schools and social gatherings helps slow the spread of COVID-19.***
    - Schools may need to close or rearrange seating because they are places where people congregate.
        - Parents, teachers, school staff, and children can be protected from COVID-19 with delayed starts, offering online classes, rearranging layouts, and reducing student numbers.
        - Children may be unaware that they are carrying the virus that causes COVID-19.
    - Communities should encourage people to avoid close contact – maintain at least 6 feet – with people who are coughing, sneezing, and have a fever.
    - Unintended consequences of school closures, such as the impact on working parents, need to be thoroughly considered.
3. ***Schools and social gatherings should adhere to government-issued guidance on social distancing.***[119] [120]
    - Social distancing has been used successfully in the past to help prevent the spread of communicable diseases.
        - Public health authorities have seen the value of social distancing from experiences with measles, SARS, pandemic influenza, and seasonal influenza.
    - Communities should coordinate their planned social distancing efforts with employers, faith-based organizations, and non-profit organizations.

[119] https://www.cdc.gov/coronavirus/2019-ncov/downloads/community/School-Admin-K12-readiness-and-planning-tool.pdf

[120] https://www.cdc.gov/coronavirus/2019-ncov/community/schools-childcare/schools.html

407. What are state, territorial, and local health departments doing to slow the spread of COVID-19?

Key Messages/Shorter Answer (Soundbite):

1. *State, territorial, and local health departments are providing timely and accurate information on COVID-19.*
2. *Availability of COVID-19 testing is improving.*
3. *State, territorial, and local health departments rely on the public to help in control COVID-19.*

Longer Answer:

1. ***State, territorial, and local health departments are providing timely and accurate information on COVID-19.***
    - State, territorial, and local health departments are:
        - disseminating information on the progress of their response efforts
        - responding quickly to dispel rumors, misperceptions, and stigmatization of affected groups
        - providing guidance to private and public sector organizations on social distancing
        - working closely with federal agencies, governors, and local and state emergency management agencies to help inform and plan for the response to COVID-19
        - highly trained and experienced professionals with years of preparing and practicing for situations like coronavirus.
2. ***Availability of COVID-19 testing is improving.***
    - Commercial and private services are working with health departments to provide diagnostic testing for COVID-19 as well as antibody testing.
    - As testing data are shared with state, federal, and local governments, the understanding of the COVID-19 pandemic will improve.
    - As testing increases, reported numbers of cases will likely rise.
        - The observed number of COVID-19 cases identified by testing needs to be separated from the increase in cases due to spread in the population.
        - The increased number of cases from testing may reflect an improved ability to detect COVID-19 cases earlier, which helps prevent transmission.
    - Delays in conducting and reporting test results can result in lost opportunities to quickly stop transmission of COVID-19.
3. ***State, territorial, and local health departments rely on the public to help control COVID-19.***
    - The best way to prevent the spread of COVID-19 is to avoid being exposed.
        - Everyday preventive actions such as hand washing help prevent the spread of COVID-19.
    - Members of the public can help state, territorial, and local health departments by following local guidelines for social distancing.
    - State, territorial, and local health departments, together with community support, have successfully controlled outbreaks of SARS (Severe Acute Respiratory Syndrome), Ebola, Zika, measles, pandemic influenza, seasonal influenza, and foodborne diseases.

408. How long does the virus that causes COVID-19 live on surfaces?

Key Messages/Shorter Answer (Soundbite):

1. *When the virus that causes COVID-19 lands on a surface, it starts to degrade.*
2. *Virus survival is influenced by the type of surface material.*
3. *The virus that causes COVID-19 can be cleaned from surfaces.*

Longer Answer:

1. ***When the virus that causes COVID-19 lands on a surface, it starts to degrade.***
   - Virus survival depends highly on environmental conditions like temperature, air currents, humidity, and sunlight.
   - Viruses need a living host to replicate and produce more viruses.
   - Regular hand washing and surface cleaning can accelerate virus degradation.
2. ***Virus survival is influenced by the type of surface material.***[121] [122]
   - The virus that causes COVID-19 decays more slowly on plastic and stainless steel than on copper and cardboard.
     - The virus that causes COVID-19 may be able to last as long as 2-3 days on plastic and stainless steel; up to 1 day on cardboard; and up to 4 hours on copper.
   - It may also be possible for a person to contract the virus that causes COVID-19 by touching a surface with contaminated droplets on it, then touching their mouth, nose, or eyes.
   - Even if the COVID-19 virus is detectable on a surface, that does not mean there is enough virus present to infect someone.
   - While the detection of viable virus means it's theoretically possible to transmit the disease from contaminated surfaces, studies to date have only been done in laboratory conditions.
3. ***The virus that causes COVID-19 can be cleaned from surfaces.***
   - Frequent cleaning and disinfection of surfaces is the best way to prevent viral respiratory illnesses in households and community settings.
   - Daily disinfection of high-use surfaces is effective for preventing illness.
     - Surfaces should be sanitized with soap, disinfecting sprays, or wipes.
   - Frequent cleaning of surfaces should be done to prevent transmission of the virus that causes COVID-19.
   - People are more likely to become infected with the virus that causes COVID-19 from close contact with infected individuals producing large respiratory droplets than from contaminated surfaces.
   - Masks should be frequently cleaned as studies have found the virus causing COVID-19 can survive on the inside of a mask for up to a few days.

[121] https://health.clevelandclinic.org/how-long-will-coronavirus-survive-on-surfaces/

[122] https://www.webmd.com/lung/how-long-covid-19-lives-on-surfaces

409. If funerals cannot be held because of COVID-19, what can family and friends do?

Key Messages/Shorter Answer (Soundbite):

1. *Memorial and funeral processes have changed in significant ways since COVID-19 struck America.*
2. *Family members and friends are advised to consider memorials that respect social distancing guidelines.*
3. *Families and friends who attend funeral and memorial services for COVID-19 victims should adhere to social distancing and basic hygiene.*

Longer Answer:

1. ***Memorial and funeral processes have changed in significant ways since COVID-19 struck America.***
    - Authorities have issued stay-at-home orders and banned large gatherings, including funeral and memorial services.
        - Some authorities allow mourners to attend a service in person if they can maintain appropriate social distancing.
    - Many funeral homes are limiting the number of people allowed to gather for visitations, memorials, and funerals based on state and local public health guidelines.
    - In order to hold visitations, funeral homes are asking mourners to stagger when they arrive for visitation and not to linger.
    - Families should expect delays in holding a memorial service as funeral homes must clean and disinfect between services.
2. ***Family and friends are advised to consider memorials that respect social distancing guidelines.***
    - In general, there is no need to delay funeral services and visitations due to COVID-19.
    - Family and friends can choose their preferred type of memorial practice for COVID-19 victims.
    - Some people have chosen to delay memorial services and celebrations of life until a later date.
    - Some people and funeral homes are using video technology, such as livestreaming, for memorial services and celebrations of life.
3. ***Families and friends who attend funeral and memorial services for COVID-19 victims should adhere to social distancing and basic hygiene.***
    - Mourners should consider walking past the casket one at a time or driving by in their cars.
    - In an abundance of caution, touching the body in any way — kissing, handholding, hugging — is highly discouraged to prevent the transfer of COVID-19.
    - Small memorials and funeral services involving only a few family members or close friends can be done provided social distancing is maintained.
    - Mourners should consider calling, sending letters, and using other ways to reach out and express condolences.

410. What should be done with the bodies of those who have died from COVID-19?

Key Messages/Shorter Answer (Soundbite):

1. *Scientists believe that deceased persons pose little or no risk of spreading COVID-19.*
2. *Personnel who interact with a deceased person should use appropriate personal protective equipment according to their level of interaction with the body*
3. *In many cases, professional services manage the remains of those who have died from COVID-19.*

Longer Answer:

1. ***Scientists believe that deceased persons pose little or no risk of spreading COVID-19.***
    - People who have died from COVID-19 or other causes can be buried or cremated consistent with the wishes of the deceased or family members.
    - Scientists believe that the virus that causes COVID-19 does not survive long after death.
    - Current understanding indicates COVID-19 transmission happens with close contact with a living, infected person.
        - Scientists in Thailand have reported the first known case in a forensic medical professional of COVID-19 infection from a dead person.
    - To be safe, people should avoid touching the body of a deceased person suspected of having died from COVID-19.
2. ***Personnel who interact with a deceased person should use appropriate personal protective equipment according to their level of interaction with the body.***[123] [124]
    - Guidelines may vary depending upon whether a person dies of COVID-19 in healthcare facilities, homes, or other locations.
    - Responsible parties should ensure that the necessary hand hygiene and personal protective equipment supplies are available for those attending COVID-19 victims.
    - The dignity of the deceased, their cultural and religious traditions, and their families should be respected.
3. ***In many cases, professional services manage the remains of those who have died from COVID-19.***
    - National and local requirements guide the handling and disposition of the bodies.
        - Families and traditional burial attendants can be equipped to conduct safe burials of people who died of COVID-19.
    - Safety procedures for deceased persons infected with COVID-19 should be consistent with those who have died from an acute respiratory illness.
    - Families and friends who attend funeral and memorial services should receive guidance on social distancing and basic hygiene.
    - People should seek guidance from competent authorities before transferring a deceased person to a funeral home, autopsy unit, mortuary, crematorium, or burial site.
        - Checklists are available for what to do if someone dies of COVID-19.[125]

[123] https://apps.who.int/iris/bitstream/handle/10665/331538/WHO-COVID-19-IPC_DBMgmt-2020.1-eng.pdf

[124] https://www.cdc.gov/coronavirus/2019-ncov/faq.html#COVID-19-and-Funerals

[125] https://www.consumerreports.org/cro/magazine/2012/10/what-to-do-when-a-loved-one-dies/index.htm

500 Series: Outbreak Questions

501. What is the source of COVID-19?

Key Messages/Shorter Answer (Soundbite):

1. *COVID-19 is a coronavirus – a large family of viruses that circulate among humans and animals.*
2. *An animal is the likely source for the coronavirus that causes COVID-19.*
3. *There are only a few isolated and confirmed cases of animals and pets carrying COVID-19 in the U.S.*

Longer Answer:

1. ***COVID-19 is a coronavirus – a large family of viruses that circulate among humans and animals.***
   - Coronaviruses occur in several species of animals and reptiles.
     - Potential animal sources of COVID-19 include bats, cattle, horses, dogs, cats, ferrets, camels, bats, and snakes.
   - The virus that causes COVID-19 is zoonotic, meaning it usually exists in animals, but it can spread to humans.
   - For a coronavirus to spread from animals to humans, the virus must first go through a series of genetic mutations to become easily transmissible between humans.
2. ***An animal is the likely source for the coronavirus that causes COVID-19.***
   - The first persons infected with COVID-19 likely acquired the virus directly from animals.
   - The virus that causes COVID-19 has genetic characteristics that suggest it has its origins in bats.
   - Chinese researchers suggested that pangolins, which are long-snouted mammals often used in traditional Chinese medicine, may be the animal source of the virus that causes COVID-19.
   - Scientists do not know whether bats were the source of infection for other animals in China.
   - Genetic evidence does not support the idea that the virus that causes COVID-19 has laboratory origination.[126] [127]
3. ***There are only a few isolated and confirmed cases of animals and pets carrying COVID-19 in the U.S.***[128]
   - There are very limited reports of dogs testing positive for the virus that causes COVID-19.
   - The Department of Agriculture confirmed cases of COVID-19 in two pet cats in New York.[129]
     - Both cats had mild respiratory illness and have made a full recovery.
   - There is no evidence to indicate that pets can spread COVID-19 to humans.
   - The Department of Agriculture identified one tiger at a New York zoo that has tested positive for the virus that causes COVID-19 in humans.
     - Public health officials believe that a zoo employee spread the virus to the tiger.
   - There have been few reported cases in animals worldwide, with most having close contact with people with COVID-19.
   - If a person is sick with or suspected to have COVID-19, they should avoid contact with pets and other animals.

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[126] https://doi.org/10.1038/s41591-020-0820-9

[127] https://www.dhs.gov/sites/default/files/publications/mql_sars-cov-2_-_cleared_for_public_release_20201013.pdf

[128] https://www.cdc.gov/coronavirus/2019-ncov/daily-life-coping/animals.html

[129] https://www.cdc.gov/media/releases/2020/s0422-covid-19-cats-NYC.html

502. How worried should people be about COVID-19?

Key Messages/Shorter Answer (Soundbite):

1. *COVID-19 is concerning because it is a new disease infecting many people and spreading rapidly throughout the U.S. and the world.*
2. *As the COVID-19 outbreak expands, the risk of being exposed to the virus will increase.*
3. *The best way to prevent becoming infected is to avoid being exposed to the virus.*

Longer Answer:

1. ***COVID-19 is concerning because it is a new disease infecting many people and spreading rapidly throughout the U.S. and the world.***
   - COVID-19 can result in severe illness, particularly in older adults or individuals with underlying medical conditions.
   - People are concerned because:
     - there are multiple opportunities for contracting COVID-19 due to factors beyond one's immediate control
     - of the dramatic effect of COVID-19 on the economy and jobs
     - of changing guidelines and recommendations
     - the virus that causes COVID-19 can be transmitted by people who do not show signs or symptoms of being infected.
2. ***As the COVID-19 outbreak expands, the risk of being exposed to the virus will increase.***[130]
   - As testing continues to increase, we should expect to see more reported cases of COVID-19.
   - People in places where ongoing community spread is happening are at increased risk of exposure.
   - Public health officials are closely monitoring communities in the U.S. and adjust guidance and recommendations to help keep communities safe.
     - The CDC has guidelines for communities, schools, organizations, workplaces, and states.
   - Multiple countries have achieved promising results with basic public health measures.
3. ***The best way to prevent becoming infected is to avoid being exposed to the virus.***
   - Where COVID-19 is spreading, people should stay home as much as possible and maintain social distancing.
   - Avoiding exposure slows COVID-19 and reduces the strain on the healthcare system.
   - Everyone should do their best to avoid close contact (within six feet) of people who are sick, especially those who are coughing and sneezing.
   - People should take precautionary actions, including frequent hand washing, using hand sanitizer, covering coughs and sneezes, wearing masks, and avoiding touching their eyes, nose, and mouth after touching surfaces.
   - People who are sick with fever, dry cough, or difficulty breathing should stay home and contact their healthcare provider.
   - People should follow expert advice, verify information, and avoid dangerous myths.[131]

[130] https://www.cdc.gov/coronavirus/2019-ncov/hcp/return-to-work.html

[131] https://www.who.int/emergencies/diseases/novel-coronavirus-2019/advice-for-public/myth-busters

503. How contagious is the virus that causes COVID-19?

Key Messages/Shorter Answer (Soundbite):

1. *The virus that causes COVID-19 is transmitted similarly to viruses that cause the common cold.*
2. *Data support that the virus that causes COVID-19 is more contagious than the viruses that cause the common cold and the 1918 influenza pandemic strain.*
3. *Much is unknown about the spread of the virus that causes COVID-19.*

Longer Answer:

1. ***The virus that causes COVID-19 is transmitted similarly to viruses that cause the common cold.***[132] [133] [134] [135]
    - The virus that causes COVID-19 is a respiratory virus that spreads primarily through close contact with an infected person.
    - COVID-19 can be spread through droplets created when a person coughs or sneezes, or through droplets of saliva or discharge from the nose.
    - An infected person without symptoms can transmit the virus that causes COVID-19.
2. ***Data support that the virus that causes COVID-19 is more contagious than the viruses that cause the common cold and the 1918 influenza pandemic strain.***[133] [134] [136] [137]
    - Since most cases of COVID-19 are mild, the disease may be more widespread than current testing numbers indicate.
    - Scientists have estimated that an infected person could spread COVID-19 to two or three additional people (and possibly more) if no control measures are used.
    - Person-to-person spread usually happens after close contact with an infected person.
        - Most experts believe that the virus that causes COVID-19 is transmitted primarily by large airborne droplets that typically travel no more than 6 feet.
        - Small droplets can remain suspended for many minutes to hours and travel far from the source on air currents.
    - People are thought to be highly contagious when they are most symptomatic (the sickest).
    - Early and potentially highly efficient transmission of the virus may occur before symptoms or in conjunction with the first mild symptoms.[138] [139]
3. ***Much is unknown about the spread of the virus that causes COVID-19.***[133] [134] [136]
    - Current data indicates that people who have symptoms cause the majority of virus spread.
    - More research is needed about COVID-19 spread from contaminated surfaces.
    - Effective control of COVID-19 is difficult because the virus is highly contagious.

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[132] https://www.cdc.gov/coronavirus/2019-ncov/faq.html

[133] https://www.cdc.gov/coronavirus/2019-ncov/hcp/faq.html

[134] https://www.who.int/emergencies/diseases/novel-coronavirus-2019

[135] https://www.nejm.org/doi/full/10.1056/NEJMc2001737

[136] https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/how-covid-spreads.html

[137] https://wwwnc.cdc.gov/eid/article/26/7/20-0282_article

[138] https://www.nejm.org/doi/full/10.1056/NEJMc2001468

[139] https://www.nejm.org/doi/full/10.1056/NEJMoa2008457

504. How rapidly does COVID-19 move from place to place?

Key Messages/Shorter Answer (Soundbite):

1. *The virus that causes COVID-19 has moved rapidly from place to place.*
2. *Scientists are uncertain about how rapidly COVID-19 will continue to spread.*
3. *The virus that causes COVID-19 appears to move more rapidly than influenza or the SARS viruses.*

Longer Answer:

1. ***The virus that causes COVID-19 has moved rapidly from place to place.***
   - COVID-19 is thought to move mainly from person-to-person through the large droplets produced when an infected person coughs or sneezes.
   - Some transmission of COVID-19 may occur before people show symptoms.
   - How easily a virus like COVID-19 spreads from person-to-person can vary depending on different conditions, such as environment.
   - The primary purposes of testing and contact tracing are to understand better where the virus has been, predict where it may go, and help authorities target control efforts.
2. ***Scientists are uncertain about how rapidly COVID-19 will continue to spread.***
   - People are thought to be highly contagious when they are most symptomatic (the sickest) but can also be contagious without showing symptoms.
     - Early and potentially highly efficient transmission of the virus may occur before clinical symptoms or in conjunction with the very first mild symptoms.
   - More testing of people for COVID-19 will bring more confirmed cases, but that does not mean the virus is spreading more rapidly.
   - COVID-19 transmission from infected people may occur before symptoms appear.[140]
   - COVID-19 transmission can occur in association with the first mild, non-specific symptoms.[141]
   - Aerosol transmission of COVID-19 may happen as virus can remain viable in aerosols for hours.
   - Small airborne droplets are emitted when a person is breathing and speaking.
3. ***The virus that causes COVID-19 appears to move more rapidly than influenza or the SARS viruses.***[142]
   - Scientists estimate that each person who gets sick with COVID-19 could potentially spread it to two or three additional people.
     - How easily a virus spreads from person-to-person varies.
   - People with the flu tend to infect one or slightly more than one additional person on average.
   - The faster public health officials can find people who are infected and isolate them from other people, the more successful they will be in controlling COVID-19.
   - Even if the virus that causes COVID-19 spreads slowly, prevention and control will be difficult if COVID-19 can be easily transmitted to other people.

[140] https://www.thelancet.com/journals/laninf/article/PIIS1473-3099(20)30230-9/fulltext

[141] https://www.nejm.org/doi/full/10.1056/NEJMc2001468

[142] https://www.cdc.gov/coronavirus/2019-ncov/faq.html

505. How long will concerns about COVID-19 last?

Key Messages/Shorter Answer (Soundbite):

1. *Scientific data and testing will help address lingering questions and concerns about COVID-19.*
2. *Concerns will persist while the coronavirus that causes COVID-19 continues to circulate and spread.*
3. *Concerns will last while COVID-19 continues to impact the economy, health, and everyday life.*

Longer Answer:

1. ***Scientific data and testing will help address lingering questions and concerns about COVID-19.***[143] [144] [145] [146] [147] [148]
    - Viruses are unpredictable in terms of who will be exposed, who will become infected, and the severity of illness that people who are infected will experience.
        - The ability of viruses to spread depends on many things, including the time of year, humidity, and indoor and outdoor temperatures.
    - Experts have called for improved COVID-19 testing capabilities with results quickly available.
        - Testing availability remains insufficient, and results are limited by false negatives and the inability to detect low virus levels.
    - Experts are calling for widespread COVID-19 testing to aid identification, isolation, treatment, and contact tracing as well as testing for antibodies that may indicate immunity.
    - Experts believe the most important resource for slowing COVID-19 is the public, whose sense of personal responsibility is critical regarding targeted social distancing and testing.
2. ***Concerns will persist while the coronavirus that causes COVID-19 continues to circulate.***
    - The common cold has a generic name because it is caused by many respiratory viruses, of which some (10-30%) are coronaviruses.
    - Public health departments and experts will be working with communities and healthcare providers to limit the spread of COVID-19.
    - Like influenza, experts believe that the virus that causes COVID-19 will likely genetically mutate to a weakened state that will continue to circulate in humans.
        - Predicting the future severity of COVID-19 is difficult because severity is controlled by multiple genes.[149]
3. ***Concerns will last while COVID-19 continues to impact the economy, health, and everyday life.***
    - Concerns will last depending upon the rate of global spread and upon the time to develop safe and effective medicines and vaccines.
    - Hospitals, healthcare organizations, and communities need to be prepared to handle surges.
    - Hospitals, healthcare facilities, nursing homes, and places with older patients and people with underlying medical conditions need to protect vulnerable people from severe COVID-19 illness.

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[143] https://www.cdc.gov/coronavirus/2019-ncov/symptoms-testing/testing.html

[144] https://www.cdc.gov/coronavirus/2019-nCoV/index.html

[145] https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/how-covid-spreads.html

[146] https://www.who.int/news-room/q-a-detail/q-a-coronaviruses

[147] https://www.nih.gov/health-information/coronavirus

[148] https://www.nejm.org/coronavirus

[149] https://www.nature.com/articles/s41564-020-0690-4

600 Series: Vaccine and Response Questions

601. How long will it take to develop a vaccine for COVID-19?

Key Messages/Shorter Answer (Soundbite):

1. *A massive global effort is underway to develop a vaccine for COVID-19 using a wide range of existing and new technologies.*
2. *Before being made available for emergency use or being licensed, new vaccines must have good evidence of safety and effectiveness.*
3. *Initial supplies of a COVID-19 vaccine will be prioritized based on risk of infection and disease.*

Longer Answer:

1. ***A massive global effort is underway to develop a vaccine for COVID-19 using a wide range of existing and new technologies.***[150]
   - Experts believe that using many different approaches to develop COVID-19 vaccines will result in safe and effective vaccines being available sooner.
     - Countries, institutions, companies, and scientists are cooperating in an unprecedented way to accelerate vaccine development that historically takes years.
   - Most of the vaccine technologies are being designed to prompt an immune response without causing disease.
     - Recently approved immune stimulants (technically known as adjuvants) are being studied to see if they can improve the effectiveness of COVID-19 vaccines.
2. ***Before being made available for emergency use or being licensed, new vaccines must have good evidence of safety and effectiveness.***[151]
   - In the U.S., new vaccines go through three stages of clinical trials to establish safety and effectiveness.
   - If there is enough data that a new vaccine is safe and effective, the manufacturer can ask the FDA to make their vaccine available prior to approval via an Emergency Use Authorization.
   - Several COVID-19 vaccines are currently in late-stage studies.
     - Most of the COVID-19 vaccines in late-stage clinical trials will require two separate doses.
3. ***Initial supplies of a COVID-19 vaccine will be prioritized based on risk of infection and disease.***[152]
   - Public health authorities will provide guidance for vaccine use in consultation with the Department of Health and Human Services/Centers for Disease Control and Prevention.
   - People at the highest risk of infection include doctors, nurses, and others caring for infected patients.
   - People 65 or older and those with underlying health conditions are most likely to experience severe disease and are likely to be prioritized.
   - Until clinical trials are done with children, the first COVID-19 vaccines available will likely only be for adults.
   - In 2020, the U.S. government initiated "Operation Warp Speed" to produce and deliver 300 million doses of safe and effective vaccines with the initial doses available by January 2021.

[150] https://www.niaid.nih.gov/diseases-conditions/coronaviruses

[151] https://www.mayoclinic.org/diseases-conditions/coronavirus/in-depth/coronavirus-vaccine/art-20484859

[152] https://www.hhs.gov/coronavirus/explaining-operation-warp-speed/index.html

602. Is a COVID-19 vaccine necessary?

Key Messages/Shorter Answer (Soundbite Answer}:

1. *A safe and effective vaccine to prevent COVID-19 is the best tool for ending the pandemic.*
2. *Currently, there are no specific treatments approved for COVID-19.*
3. *Until most people are vaccinated, public health precautions will be needed.*

Longer Answer:

1. ***A safe and effective vaccine to prevent COVID-19 is the best tool for ending the pandemic.***[153] [154]
   - Vaccines typically provide protection by triggering a protective immune response.
   - Since becoming infected with COVID-19 can lead to severe disease or death, vaccination is the best tool to prevent illness and help achieve population immunity.
   - Many different potential vaccines for COVID-19 are being developed.
   - While social distancing, handwashing, and wearing masks help slow the spread of COVID-19, the best way to stop the virus is to achieve immunity to the virus through vaccination.
   - It is not yet known if the natural immunity from getting COVID-19 can protect someone from reinfection or for how long.
2. ***Currently, there are no specific treatments approved for COVID-19.***[155]
   - Without an effective treatment and with the potential for severe health outcomes, preventing illness or severe illness from COVID-19 vaccines is vital.
   - Medicines that can treat COVID-19 are being rapidly developed, and many clinical trials with investigational and existing drugs and treatments are on-going.
3. ***Until most people are vaccinated, public health precautions will be needed.***
   - Until a vaccine is widely available, people should continue following social distancing guidelines and wear masks.
   - People should continue to wash their hands often, avoid touching their faces, cover coughs and sneezes, and disinfect frequently touched surfaces.
   - People should get a seasonal influenza vaccine.
     - Although the influenza vaccine will not protect against COVID-19, it could reduce the likelihood of getting infected with COVID-19 and the flu at the same time.
     - Preventing influenza illness and outbreaks is an important way to help hospitals and healthcare providers better treat and care for people.

[153] https://www.chop.edu/centers-programs/vaccine-education-center/making-vaccines/prevent-covid

[154] https://www.mayoclinic.org/diseases-conditions/coronavirus/in-depth/coronavirus-vaccine/art-20484859

[155] https://www.cdc.gov/coronavirus/2019-ncov/hcp/therapeutic-options.html

603. Who will get the vaccine first and how will it be distributed?

Shorter Answer:

1. *Once COVID-19 vaccines are made available, the initial supply is likely to be limited.*
2. *Health care providers, essential workers, and people who are at high-risk will be prioritized to receive the first available doses.*
3. *Public health experts are refining distribution plans for a COVID-19 vaccine.*

Longer Answer:

1. ***Once COVID-19 vaccines are made available, the initial supply is likely to be limited.***[156] [157]
   - COVID-19 vaccine availability will depend on the results of the vaccine clinical trials.
   - An unprecedented amount of resources has been made available to develop COVID-19 vaccines.
2. ***Health care providers, essential workers, and people who are at high-risk will be prioritized to receive the first available doses.***[157] [158]
   - Groups considered for priority include healthcare providers, essential workers, people who live in high-risk environments like long-term care facilities, and people with pre-existing conditions that place them at higher risk.
   - The identification of prioritized groups has not yet been finalized and may vary across different locations.
   - Vaccine effectiveness may vary for different groups, and this will factor into vaccine recommendations and use.
   - The level of disease, number of doses needed, and vaccine demand will influence how vaccine doses are distributed.
3. ***Public health experts are refining distribution plans for a COVID-19 vaccine.***[158]
   - State and local health departments are working with the CDC to determine a vaccine distribution plan for their respective areas.
   - Information on how initial doses of the vaccine will be distributed will be provided once vaccines are made available.
   - An important part of the planning process is keeping the public informed.

[156] https://www.cdc.gov/coronavirus/2019-ncov/hcp/therapeutic-options.html

[157] https://www.chop.edu/centers-programs/vaccine-education-center/making-vaccines/prevent-covid

[158] https://www.doh.wa.gov/Emergencies/COVID19/Vaccine

604. When will there be enough vaccine for everyone?

Shorter Answer:

1. *Vaccine availability will depend on safety and effectiveness demonstrated in on-going clinical trials.*
2. *The goal is to have a safe and effective vaccine for everyone.*
3. *Multiple vaccines and vaccine strategies are being used in the efforts to develop a safe and effective vaccine.*

Longer Answer:

1. ***Vaccine availability will depend on safety and effectiveness demonstrated in on-going clinical trials.***[159]
    - Many traditional and new technologies are being used to develop to create safe and effective COVID-19 vaccines.
    - Experts believe that using many different approaches to developing COVID-19 vaccines will result in safe and effective vaccines being available sooner.
    - Scientists are using past research on coronavirus vaccines – like SARS (Severe Acute Respiratory Syndrome) and MERS (Middle East Respiratory Syndrome) – to help develop a COVID-19 vaccine.
2. ***The national goal is to have a safe and effective vaccine for everyone.***[160]
    - Potential vaccines for COVID-19 have already advanced in clinical trials.
    - Both existing and new approaches are being used to accelerate the availability of vaccines.
        - Multiple vaccine strategies are being supported by private and public funding.
        - Public and private sector organizations and experts are cooperating in an unprecedented way to accelerate the availability of vaccines.
    - Promising vaccines are being manufactured at a large scale simultaneously with clinical trials.
3. ***Multiple vaccines and vaccine strategies are being used in the efforts to develop a safe and effective vaccine.***[161]
    - Given that COVID-19 vaccines are new and their success is uncertain, it is important to have alternative strategies in the event of setbacks.
    - Specific features of different COVID-19 vaccines will influence who gets which vaccine.
    - Additional studies will need to be completed to ensure an approved vaccine is safe and effective for all age groups and special populations.
    - Even when a vaccine becomes widely available, people should continue following social distancing guidelines and wear masks in gatherings and public settings.

[159] https://www.coronaviruspreventionnetwork.org/clinical-studies-faq/

[160] https://www.hhs.gov/coronavirus/explaining-operation-warp-speed/index.html

[161] https://www.chop.edu/centers-programs/vaccine-education-center/making-vaccines/prevent-covid

605. Does the seasonal flu vaccine protect against COVID-19?

Shorter Answer:

1. *The seasonal flu vaccine does not protect against COVID-19 but has other important benefits.*
2. *Getting the seasonal flu vaccine is more important than ever given COVID-19.*
3. *It is possible to get the flu and COVID-19 at the same time.*

Longer Answer:

1. ***The seasonal flu vaccine does not protect against COVID-19 but has other important benefits.***[162]
   - The seasonal flu vaccine protects against the specific influenza viruses predicted to be circulating each year.
   - Flu vaccines have been shown to reduce the risk of getting the flu and reduce the severity of the flu.
   - Flu vaccination can reduce flu illnesses, doctor visits, and missed work and school due to flu, as well as prevent flu-related hospitalizations and deaths.
2. ***Getting the seasonal flu vaccine is more important than ever given COVID-19.***[163]
   - Seasonal influenza kills tens of thousands of Americans every year.
   - The seasonal flu vaccine will help protect people from simultaneous infection with both influenza and COVID-19.
   - Everyone 6 months and older should get a flu vaccine every season with rare exceptions.
   - Vaccination is particularly important for people who are at high risk of serious complications from influenza, such as the elderly.
3. ***It is possible to get the flu and COVID-19 at the same time.***
   - Health experts are studying whether contracting both flu and COVID-19 at the same time puts a person at greater risk for severe health outcomes.
   - Several symptoms of flu and COVID-19 are similar and make it hard to tell the difference.
   - The CDC has developed a single test that will simultaneously check for seasonal flu viruses and the virus that causes COVID-19.[164]

[162] https://www.cdc.gov/flu/season/faq-flu-season-2020-2021.htm

[163] https://www.ucsf.edu/news/2020/09/418406/why-covid-19-means-you-need-flu-shot-year

[164] https://www.cdc.gov/coronavirus/2019-ncov/lab/multiplex.html

606. How will we know if a COVID-19 vaccine is safe?

Shorter Answer:

1. *COVID-19 vaccines must pass multiple safety tests.*
2. *COVID-19 vaccines go through multiple stages of clinical trials to determine safety.*
3. *COVID-19 vaccines will continue to be monitored for safety once in use.*

Longer Answer:

1. ***COVID-19 vaccines must pass multiple safety tests.***[165]
   - The Food and Drug Administration (FDA) and panels of experts thoroughly review vaccine clinical trial safety findings and monitor safety data.
   - Although the COVID-19 vaccine is on track to become the fastest-developed vaccine in history, rigorous safety standards and strict regulations are in place.
   - All safety findings discovered in clinical studies must be communicated clearly and explained well to the public.
2. ***COVID-19 vaccines go through multiple stages of clinical trials to determine safety.***[166]
   - Potential COVID-19 vaccines go through multiple rigorous stages of testing in people to ensure they are both safe and effective.
     - Phase I tests for initial human safety and dosage in a small number of people.
     - Phase II tests hundreds of people with different characteristics (such as age and health status) to obtain more safety information and evaluate the immune response.
     - Phase III tests thousands of people to further determine safety and show whether the vaccine is effective.
   - Once all clinical study phases are completed, the FDA reviews the trial results and conducts other necessary safety inspections before allowing use of the vaccines.
3. ***COVID-19 vaccines will continue to be monitored for safety once in use.***[167] [168]
   - Once a vaccine is in use, government agencies (e.g., FDA and CDC), manufacturers, health care institutions, non-governmental organizations, and other public and private sector organizations continue to monitor and evaluate vaccine safety.
   - The CDC uses multiple systems to monitor vaccine safety, which includes:
     - The Vaccine Adverse Event Reporting System (VAERS): an early warning system, co-managed by CDC and FDA, to monitor for potential vaccine safety problems where anyone can report possible vaccine side effects to VAERS.
     - The Vaccine Safety Datalink (VSD): a collaboration between CDC and nine health care organizations that conducts vaccine safety monitoring and research.
     - The Clinical Immunization Safety Assessment (CISA) Project: a partnership between CDC and several medical research centers that provides expert consultation and conducts clinical research on vaccine-associated health risks.

[165] https://www.cdc.gov/vaccines/hcp/vis/index.html

[166] https://www.fda.gov/media/139638/download

[167] https://www.fda.gov/patients/drug-development-process/step-3-clinical-research

[168] https://www.cdc.gov/vaccinesafety/vaccines/flu-vaccine.html

607. What is the medical treatment for people affected by COVID-19?

Key Messages/Shorter Answer (Soundbite):

1. *Medical treatments for people with COVID-19 infections or illnesses are rapidly evolving.*
2. *If you believe you have been exposed to COVID-19, contact your healthcare provider immediately.*
3. *Most people who become sick with COVID-19 will experience mild illness and can recover at home.*

Longer Answer:

1. ***Medical treatments for people with COVID-19 infections or illnesses are rapidly evolving.***
   - Most current COVID-19 treatments address symptoms and help the patient's immune system.
   - Current COVID-19 supportive therapy can include assisted breathing.[169]
   - Medicines to treat COVID-19 are being developed or tested in large numbers of clinical trials.
     - Steroids, such as dexamethasone, appear to benefit critically ill patients with COVID-19 receiving mechanical ventilation or oxygen.[170]
     - Patients receiving a 5-day course of remdesivir were more likely to improve.[171]
     - Clinical trials in hospitalized patients found that hydroxychloroquine and chloroquine showed "no benefit for decreasing the likelihood of death or speeding recovery."[172] [173]
     - Experimental therapies are being tested, including antibody cocktails and blood plasma from recovered patients.[174]
2. ***If you believe you have been exposed to COVID-19, contact your healthcare provider immediately.***
   - Common symptoms of COVID-19 include fever, dry cough, fatigue, and shortness of breath and may also include chills, repeated shaking with chills, muscle pain, headache, sore throat, congestion, runny nose, and loss of taste or smell.
   - Call your healthcare provider if:
     - You have symptoms and have been in an area where COVID-19 has been identified.
     - You have symptoms and have been in contact with someone confirmed or being evaluated for COVID-19.
3. ***Most people who become sick with COVID-19 will experience mild illness and can recover at home.***
   - Symptoms might last a few days, and people with the virus might feel better in about a week.
   - Treatment for mild illness is focused on relieving symptoms and includes rest, fluid intake, fever-reducing medicines, and pain relievers.
   - If people with mild symptoms get worse, they should contact their healthcare provider.[175]

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[169] https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4173887

[170] https://jamanetwork.com/journals/jama/fullarticle/2770275

[171] https://www.cdc.gov/library/covid19/090120_covidupdate.html

[172] https://www.fda.gov/drugs/drug-safety-and-availability/fda-cautions-against-use-hydroxychloroquine-or-chloroquine-covid-19-outside-hospital-setting-or

[173] https://www.medrxiv.org/content/10.1101/2020.04.16.20065920v2

[174] https://science.sciencemag.org/content/369/6506/1010

[175] https://www.mayoclinic.org/diseases-conditions/coronavirus/in-depth/treating-covid-19-at-home/art-20483273

608. How are hospitals managing major surges of COVID-19?

Key Messages/Shorter Answer (Soundbite):

1. *Many hospitals in the U.S. are experiencing increases in people with COVID-19 infections and illnesses.*
2. *Hospital staff are trained to manage surges of patients with COVID-19.*
3. *Most hospitals have experience managing disease outbreaks.*

Longer Answer:

1. ***Many hospitals in the U.S. are experiencing increases in people with COVID-19 infections and illnesses.***
    - Many hospitals and healthcare facilities may experience increases in patients with respiratory illnesses with the influenza season.
    - Many hospitals and healthcare facilities have made changes to safely and effectively handle more patients with respiratory illnesses, including COVID-19.
    - Hospitals and healthcare facilities have reported shortages in available beds, testing kits, protective gear, trained staff, and needed medical equipment.
    - Whether a hospital is overwhelmed by COVID-19 depends upon many factors, including current capacity and the number of patients who seek care.
    - People who test positive for COVID-19 and are asymptomatic or exhibiting mild symptoms should first contact their health care provider before seeking hospital admission.
2. ***Hospital staff are trained to manage surges of patients with COVID-19.***
    - Hospital personnel are being trained to quickly identify potential COVID-19 cases.
        - Healthcare personnel are being trained to watch for patients in the early stages of illness with symptoms that may seem like the flu.
        - Healthcare personnel can test for COVID-19 in suspected individuals.
    - At most hospitals, people who are or may have significant or serious COVID-19 illness are admitted through emergency departments following an assessment.
    - Hospital personnel are being trained on how to put on and take off protective gear, draw blood safely, and dispose of biohazardous materials.
3. ***Most hospitals have experience managing disease outbreaks.***
    - Many healthcare facilities have experience with previous outbreaks, such as SARS, Ebola, Zika, measles, pandemic influenza, seasonal influenza, and food-borne diseases.
    - Hospital early detection and containment systems are based on lessons learned from previous disease outbreaks.
    - Hospitals train, equip, and practice in simulated emergencies for situations like coronavirus.
    - The CDC has developed a highly specific Hospital Preparedness Checklist for COVID-19.[176]

[176] https://www.cdc.gov/coronavirus/2019-ncov/hcp/hcp-hospital-checklist.html

609. Are the anti-malaria drugs hydroxychloroquine and chloroquine safe and effective treatment for COVID-19?

Key Messages/Shorter Answer (Soundbite):

1. *Hydroxychloroquine and chloroquine have not been proven to be safe and effective for treating COVID-19.*
2. *Medical interventions other than hydroxychloroquine and chloroquine are being tested for safety and effectiveness.*
3. *Hydroxychloroquine and chloroquine can be used to treat malaria and medical conditions other than COVID-19.*

Longer Answer:

1. ***Hydroxychloroquine and chloroquine have not been proven to be safe and effective for treating COVID-19.***[177] [178] [179] [180]
    - FDA authorizes the use of hydroxychloroquine and chloroquine for COVID-19 in clinical trials.
    - Clinical trials in hospitalized patients found that hydroxychloroquine and chloroquine showed "no benefit for decreasing the likelihood of death or speeding recovery."[178]
    - As a result, the FDA revoked the emergency use authorization (EUA) to use hydroxychloroquine and chloroquine to treat COVID-19.
    - The FDA has issued a safety warning that hydroxychloroquine and chloroquine can cause abnormal heart rhythms and a dangerously rapid heart rate.
    - People should not take hydroxychloroquine and chloroquine that has not been prescribed.
2. ***Medical interventions other than hydroxychloroquine and chloroquine are being tested for safety and effectiveness.***[181]
    - People infected with COVID-19 are treated with supportive care to help relieve symptoms.
    - For severe cases of COVID-19, treatment includes support for vital organs such as mechanical ventilation to support the lungs.
    - A safe and effective vaccine for COVID-19 is the ultimate control tool and is being developed.
    - Medicines that can stimulate the human immune system to neutralize the virus that causes COVID-19 are among the most promising preventive medicines.
3. ***Hydroxychloroquine and chloroquine can be used to treat malaria and medical conditions other than COVID-19***.[179] [180]
    - Patients taking hydroxychloroquine or chloroquine to treat malaria or other conditions for which the drug has been approved should continue taking the medicine as prescribed.
    - Patients should not combine hydroxychloroquine or chloroquine with other medicines like azithromycin (commonly for other respiratory illnesses) unless prescribed.

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[177] https://www.fda.gov/drugs/drug-safety-and-availability/2020-drug-safety-communications

[178] https://www.fda.gov/drugs/drug-safety-and-availability/fda-cautions-against-use-hydroxychloroquine-or-chloroquine-covid-19-outside-hospital-setting-or

[179] https://www.cdc.gov/malaria/resources/pdf/fsp/drugs/chloroquine.pdf

[180] https://www.fda.gov/media/138946/download

[181] https://www.cdc.gov/coronavirus/2019-ncov/hcp/clinical-guidance-management-patients.html

610. What is being done to make COVID-19 testing more available in the U.S.?

Key Messages/Shorter Answer (Soundbite):

1. *Public health authorities are expanding testing for COVID-19, but large challenges remain.*
2. *Testing for COVID-19 is complex and varies widely by location.*
3. *Public health authorities are expanding testing for past exposure and immunity.*

Longer Answer:

1. ***Public health authorities are expanding testing for COVID-19, but large challenges remain.***[182] [183]
   - Experts are calling for widespread COVID-19 testing to facilitate identification, isolation, treatment, and contact tracing.
   - There are many COVID-19 tests, including diagnostic tests for current infection and antibody tests for evidence of previous infection.
   - Scientists are improving rapid antigen (virus particles that create antibodies) tests.[184] [185]
     - Rapid antigen tests are relatively inexpensive, generally accurate, and can quickly confirm infection.
     - A rapid antigen test is most informative in diagnostic testing situations in which the person has a known exposure to a confirmed case.
   - The National Institutes of Health is supporting the development of many new testing technologies, including point-of-care tests that can provide faster results.
2. ***Testing for COVID-19 is complex and varies widely by location.***[186]
   - Testing for COVID-19 varies due to many factors, including availability of test kits, regulatory barriers, restrictive policies regarding who is tested, and community readiness and capacity.
   - Health departments and providers make decisions about who should be tested.
3. ***Public health authorities are expanding testing for past exposure and immunity.***[187] [188] [189]
   - An antibody (or serology) test checks a sample of the person's blood to look for antibodies to the virus, which are produced when someone has been infected.
   - Antibody tests can provide information needed to guide the response to the pandemic by indicating how many people were infected and who may have immunity to the virus.
     - It is not yet known if the antibodies that result from COVID-19 are protective.
   - The FDA recently issued an emergency use authorization (EUA) for the first antibody point-of-care test for COVID-19, which will enable faster determination if a person has been infected.
   - Wide variation exists in the accuracy of COVID-19 commercial testing kits for antibodies.

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[182] https://www.cdc.gov/coronavirus/2019-ncov/symptoms-testing/testing.html

[183] https://www.cdc.gov/coronavirus/2019-ncov/lab/resources/antigen-tests-guidelines.html

[184] https://www.mayoclinic.org/diseases-conditions/coronavirus/expert-answers/covid-antibody-tests/faq-20484429

[185] https://www.nih.gov/news-events/news-releases/nih-continues-boost-national-covid-19-testing-capacity

[186] https://www.cdc.gov/coronavirus/2019-ncov/faq.html#Symptoms-&-Testing

[187] https://www.fda.gov/medical-devices/emergency-situations-medical-devices/faqs-testing-sars-cov-2

[188] https://www.fda.gov/news-events/press-announcements/coronavirus-covid-19-update-fda-authorizes-first-point-care-antibody-test-covid-19

[189] https://journals.plos.org/plospathogens/article?id=10.1371/journal.ppat.1008817

611. What are the COVID-19 tests?

Key Messages/Shorter Answer (Soundbite):

1. *There are diagnostic tests to see if someone has a current COVID-19 infection.*
2. *There are antibody tests for previous COVID-19 infection.*
3. *Public health authorities are supporting the development of many new testing technologies.*

Longer Answer:

1. ***There are diagnostic tests to see if someone has a current COVID-19 infection.***[190]
   - Healthcare providers use diagnostic tests to determine current COVID-19 infection.
     - Diagnostic tests use a sample of mucus typically taken from a person's nose or throat.
   - A positive antigen test result is considered very accurate, but rapid antigen tests produce more 'false negative' results than other COVID-19 diagnostic tests.
   - Most COVID-19 diagnostic tests can produce results within hours to days.
   - Scientists are improving COVID-19 rapid diagnostic tests for antigens -- pieces of the virus that induces antibodies[191] [192] [193]
     - Rapid diagnostic antigen tests can quickly confirm infection and are most informative with known exposures to a confirmed case of COVID-19.
2. ***There are antibody tests for previous COVID-19 infection.***[194]
   - The body produces antibodies in response to the virus that causes COVID-19.
   - Antibody tests can help scientists understand the extent of COVID-19's spread in populations.
   - Antibody tests identify people who have previously been infected and may have immunity.
   - It is not yet known whether having antibodies indicates immunity, and if so, for how long.
   - Antibody test quality is a concern as many antibody tests do not have full regulatory approval.
   - In addition to rapid antigen tests, scientists are investigating diagnostic tests using saliva, light-based technologies, gene-editing and less-invasive swabbing.
3. ***Public health authorities are supporting the development of many new testing technologies.***[195]
   - The National Institutes of Health is supporting the development of portable point-of-care tests that can provide faster results and reduce delays and shortages.
   - The FDA has issued Emergency Use Authorizations (EUA) to provide more timely access to both diagnostic and antibody tests.
   - Rapid, point-of-care diagnostic tests use a mucus sample from the nose or throat and can be analyzed at the doctor's office where the sample is collected.
   - At-home collection tests, prescribed by a doctor, allow the patient to collect the sample at home and send it directly to the lab to be analyzed.
   - Saliva tests allow a patient to spit into a tube rather than get their nose or throat swabbed and may be more comfortable for some people.

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[190] https://www.cdc.gov/coronavirus/2019-ncov/symptoms-testing/testing.html

[191] https://www.npr.org/sections/health-shots/2020/07/31/897320468/next-generation-coronavirus-tests-advance-toward-production

[192] https://www.cdc.gov/coronavirus/2019-ncov/lab/resources/antigen-tests-guidelines.html

[193] https://www.mayoclinic.org/tests-procedures/covid-19-diagnostic-test/about/pac-20488900

[194] https://www.mayoclinic.org/diseases-conditions/coronavirus/expert-answers/covid-antibody-tests/faq-20484429

[195] https://www.fda.gov/consumers/consumer-updates/coronavirus-testing-basics

612. What is contact tracing and how will it be done?

Key Messages/Shorter Answer (Soundbite):

1. *Contact tracing is a key public health strategy for preventing further spread of COVID-19.*
2. *Communities are working to train a large contact tracing workforce.*
3. *Public awareness and acceptance of contact tracing is critical.*

Longer Answer:

1. ***Contact tracing is a key public health strategy for preventing further spread of COVID-19.***[196]
   - Contact tracing is a core disease control measure that has been used successfully for decades to prevent and reduce the spread of other communicable diseases.
   - Public health staff work with an infected patient to help them recall everyone with whom they had extended close contact during the time they may have been infectious.
     - To protect patient privacy, contacts are informed that they may have been exposed to an infected person but are not told the identity of the person.
   - Contacts are identified and provided information so they understand their risk, how to self-quarantine, and how to monitor themselves for illness.
   - Support services, including housing, food, and medicine, can be provided to help ensure that contacts can separate themselves from others.
2. ***Many communities are working to train a large contact tracing workforce.***
   - Communities will need many trained contact tracers to support relaxing social distancing measures.
   - Health departments are seeking and training volunteers to assist with contact tracing.
   - Public health authorities are providing training, guidance, and sharing best practices on how to scale up and implement contact tracing in their communities.
3. ***Public awareness and acceptance of contact tracing is critical.***[197]
   - Contact tracing must be widely accepted to protect friends, family, and community members from potential infection.
   - Contacts of infected persons are typically asked to self-quarantine until 14 days after their last exposure.
   - Contacts of infected persons should monitor themselves by checking their temperature twice a day and watching for dry cough or shortness of breath.
   - Contacts of infected persons who develop symptoms should promptly isolate themselves and notify their health department.
   - To slow COVID-19, contact tracing must be done at an unprecedented scale and will require large numbers of trained contact tracers.
   - Participation in contact tracing is voluntary, but participation helps stop COVID-19.
     - People are often reluctant to disclose personal information about themselves and their family, friends, and colleagues to the contact tracer.

[196] https://www.cdc.gov/coronavirus/2019-ncov/php/principles-contact-tracing.html

[197] https://www.astho.org/COVID-19/Making-Contact-Tracer-Training/

700 Series: Control Questions

701. What are public health departments doing to prevent the spread of COVID-19?

Key Messages/Shorter Answer (Soundbite):

1. *Public health authorities are testing, treating, isolating, and finding contacts of those who have COVID-19.*
2. *Public health authorities are helping slow the spread of COVID-19 by encouraging social distancing.*
3. *Health departments and hospitals have training and experience controlling disease outbreaks.*

Longer Answer:

1. ***Public health authorities are testing, treating, isolating, and finding contacts of those who have COVID-19.***
    - Healthcare providers are strengthening early detection and containment systems.
        - Strengthening efforts include better training and protocols for healthcare workers, expanding COVID-19 treatment facilities, targeting and expanding testing, and implementing best practices in public health risk and crisis communications.
    - Testing, identifying, treating, and isolating people infected with COVID-19, as well as testing for possible immunity, can reduce further spread.
        - Healthcare personnel watch for people with symptoms or contact with COVID-19 and conduct appropriate testing.
    - Early tracing of COVID-19 contacts can significantly reduce further spread.
        - People who have had contact with a COVID-19 infected person should self-quarantine and monitor themselves for symptoms.
2. ***Public health authorities are helping slow the spread of COVID-19 by encouraging social distancing.***[198]
    - People are thought to be highly contagious when they are most symptomatic (the sickest), but people without symptoms can also be contagious.
    - Guidelines that encourage or enforce wearing face masks in public also help to limit the spread of COVID-19.
    - Social distancing guidelines are intended to flatten the curve and slow the spread of COVID-19 so that fewer people seek treatment at any given time.
3. ***Health departments and hospitals have training and experience controlling disease outbreaks.***
    - Federal, state, and local health departments have experience monitoring travelers to help prevent disease outbreaks.
    - Health departments and hospitals have successfully controlled outbreaks of SARS, Ebola, Zika, measles, pandemic influenza, seasonal influenza, and food-borne diseases.
    - Health departments and hospitals have highly trained and experienced workforces with years of preparing and practicing for situations like COVID-19.
    - State and local health departments are helping guide their communities regarding potential impacts from the spread of COVID-19.
    - Health professionals and departments are helping educate communities regarding the risks of COVID-19 transmission and how to best prevent and respond to the spread of COVID-19.

[198] https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/how-covid-spreads.html

702. What happens when a person infected with COVID-19 is identified?

Key Messages/Shorter Answer (Soundbite):

1. *Healthcare personnel quickly isolate a person identified to have COVID-19.*
2. *Persons identified as having COVID-19 receive treatment.*
3. *Persons infected with COVID-19 will be interviewed for contacts following detailed guidelines.*

Longer Answer:

1. ***Healthcare personnel quickly isolate a person identified to have COVID-19.***[199]
   - Healthcare workers are trained to identify patients with COVID-19 symptoms.
   - Healthcare personnel are trained to take travel histories indicating contact with COVID-19.
   - If a person has already been tested for COVID-19, they may be re-tested.
   - Healthcare personnel are trained and practiced in patient isolation.
2. ***Persons identified as having COVID-19 receive treatment.***
   - Healthcare personnel are trained and practiced in treating COVID-19 cases.
   - Persons identified as having mild to moderate symptoms are typically isolated at home for 14 days with home treatment guidance.
     - Most people diagnosed with COVID-19 will experience mild to moderate symptoms.
   - Persons identified as having severe symptoms of COVID-19 may require hospitalization and possibly intensive care with supportive measures.
     - Supportive care can include fluids, pain-killers, infection prevention and control measures, supplemental oxygen, and mechanical ventilatory support when indicated.
   - Many healthcare systems are experienced in caring for patients with infectious diseases.
3. ***Persons infected with COVID-19 will be interviewed for contacts following detailed guidelines.***
   - Early tracing of COVID-19 contacts can help reduce transmission.
   - Healthcare personnel identify COVID-19 cases quickly to reduce transmission.
   - People who have been in contact with a COVID-19 patient may be quarantined.
   - People are thought to be highly contagious when they are most symptomatic (the sickest).
   - People who have been in contact with a COVID-19 patient are monitored for temperature and symptoms.
   - Early and potentially highly efficient transmission of the virus may occur before clinical symptoms or in conjunction with the very first mild symptoms.

[199] https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/how-covid-spreads.html

703. What can communities do to slow the spread of COVID-19?

Key Messages/Shorter Answer (Soundbite):

1. *Communities working together is critical to the effectiveness of the COVID-19 response effort.*
2. *Communities are planning for and implementing social distancing measures.*
3. *Communities should help prevent discrimination and stigma.*

Longer Answer:

1. ***Communities working together is critical to the effectiveness of the COVID-19 response effort.***[200]
   - Community hospitals and other healthcare organizations are strengthening their ability to detect and track suspected cases of COVID-19.
   - Employers should plan for extended absences of employees due to illness or taking care of family members.
   - Communities should work with their health departments and local organizations to address racial and ethnic disparities.
   - Communities should improve outreach to the elderly, non-English speaking communities, and those without access to care.
     - Translated COVID-19 guidance in multiple languages is available for non-English speakers.[201]
   - As trusted sources, community- and faith-based organizations can reinforce the importance of everyday preventive action steps to members of the community to help prevent spread.
2. ***Communities are planning for and implementing social distancing measures.***
   - Health officials are recommending social distancing actions that reduce face-to-face contact to limit exposure and illness.
   - Targeted social distancing measures may include canceling large public gatherings and closing schools.
   - Decisions regarding closing and opening schools are made carefully given the disruption such decisions can cause.
   - Communities can work closely with public health authorities to address high-risk concerns at nursing homes and assisted living facilities.
3. ***Communities can help prevent discrimination and stigma.***[202]
   - Viruses are a threat to all people, regardless of race, ethnicity, or the country one lives in.
   - Viruses do not target people from specific populations, ethnicities, or racial backgrounds.
   - Viruses do not respect borders and do not discriminate among different types of people.
   - People can help prevent discrimination and stigmatization by staying informed through trusted sources and avoid dangerous myths and rumors.

[200] https://www.cdc.gov/coronavirus/2019-ncov/community/

[201] https://www.uvmhealth.org/Pages/Coronavirus/Translated-COVID-19-Guidance.aspx

[202] https://www.cdc.gov/coronavirus/2019-ncov/daily-life-coping/reducing-stigma.html

704. What are emergency responders doing about COVID-19?

Key Messages/Shorter Answer (Soundbite):

1. *Emergency responders are trained to handle persons with possible COVID-19.*
2. *Emergency response clinicians and first responders need to modify their practices for COVID-19.*
3. *The emergency response system works closely with many health partners.*

Longer Answer:

1. ***Emergency responders are trained to handle persons with possible COVID-19.***
   - Emergency response personnel include first responders, law enforcement, fire services, emergency medical services, and emergency management officials.
   - Emergency responders question callers about signs, symptoms, and risk factors for COVID-19.
   - Care and transport of COVID-19 patients by emergency response personnel presents unique challenges because of enclosed space during transport, frequent need for rapid medical decision-making, interventions with limited information, and a varying range of patient acuity and jurisdictional healthcare resources.
2. ***Emergency response clinicians and first responders need to modify their practices for COVID-19.***[203]
   - The CDC has extensive guidance for emergency responders handling COVID-19.
   - CDC guidelines recommend modifications to emergency response practices for COVID-19.
     - CDC modifications to emergency response practices for COVID-19 include patient assessment, precautions for high-risk field medical procedures, and transportation of a suspected or confirmed COVID-19 patient.
3. ***The emergency response system works closely with many health partners.***
   - Emergency response begins with close coordination and effective communication among the 911 call centers, the Emergency Medical System (EMS), healthcare facilities, and the public health system.
   - If COVID-19 is suspected, emergency responders will notify healthcare facilities in advance that they may be transporting, caring for, and/or receiving a patient.

[203] https://www.cdc.gov/coronavirus/2019-ncov/hcp/guidance-for-ems.html

705. What is isolation and quarantine?

Key Messages/Shorter Answer (Soundbite):

1. *Isolation separates infected people from others, whereas quarantine separates individuals believed to be exposed who are not yet ill.*
2. *Isolation is an effective control measure for COVID-19.*
3. *Quarantine is an effective control measure for COVID-19.*

Longer Answer:

1. ***Isolation separates infected people from others, whereas quarantine separates individuals believed to be exposed who are not yet ill.***[204]
    - Isolation and quarantine can help limit the spread of contagious disease.
    - Quick action by health officials is needed to prevent person-to-person spread of a contagious disease.
    - Both isolation and quarantine are standard public health practices for disease control and have been used successfully to help prevent the spread of communicable diseases.
2. ***Isolation is an effective control measure for COVID-19.***
    - Isolation is:
        - a way to limit the spread of disease
        - a standard public health practice for disease control
        - a medical action that can be legally enforced
        - putting an infected person in a separate room or special area, for example, of a hospital
        - protecting healthy people and caregivers from disease
        - protecting infected people from getting other diseases
        - protecting family and friends of infected people from getting sick
        - a method for enhancing specialized care to infected persons
    - Hospitals have plans that describe how to isolate patients.
3. ***Quarantine is an effective control measure for COVID-19.***
    - Quarantine is:
        - a standard method for separating and restricting the movement of people
        - used to keep someone who might have been exposed to COVID-19 away from others
        - an action taken for an individual with a believed exposure who is not yet ill (not presenting signs/symptoms)
        - where a person is asked to remain separate from other people to avoid spreading infection if they become ill
        - often used to successfully help prevent the spread of communicable disease
        - voluntary or involuntary based on medical evaluation
    - The CDC has published guidelines on monitoring symptoms and controlling the movement of persons that relate to quarantine.

[204] https://www.cdc.gov/quarantine/index.html

706. Where will sick people be placed if they are under quarantine orders?

Key Messages/Shorter Answer (Soundbite):

1. *Quarantine can be done at home as well as at special facilities.*
2. *Special facilities for quarantine may be needed if large numbers of people are involved.*
3. *Many communities have plans for quarantine procedures during a disease outbreak.*

Longer Answer:

1. ***Quarantine can be done at home as well as at special facilities.***[205]
   - Quarantine sites are determined in part by the number of cases.
   - Based on medical evaluation, quarantine may be done at a private residence or specialized facility.
2. ***Special facilities for quarantine may be needed if large numbers of people are involved.***
   - Facilities may be needed to quarantine many people in many locations, particularly individuals who become ill when they are not near their homes.
   - Local and state emergency plans identify facilities that can be used for quarantine.
   - The federal government is working with states and cities to identify additional facilities for quarantine.
3. ***Many communities have plans for quarantine procedures during a disease outbreak.***
   - Disease control plans describe the facilities and protocols needed to implement quarantine.
   - Disease control plans describe the supplies needed for quarantine.
   - Disease control plans describe the medicines needed for quarantine.

[205] https://www.cdc.gov/coronavirus/2019-ncov/if-you-are-sick/quarantine-isolation.html

707. Can quarantined or isolated people stay at home, or will they be forced to go to hospitals or some secure location?

Key Messages/Shorter Answer (Soundbite):

1. *In most cases, individuals are asked to quarantine at home voluntarily.*
2. *People in isolation may be cared for in their homes, in hospitals, or in designated healthcare facilities.*
3. *Quarantine and isolation measures require the trust and participation of the public.*

Longer Answer:

1. ***In most cases, individuals are asked to quarantine at home voluntarily.***[206] [207] [208]
   - Quarantine is a public health measure used to separate or restrict the movement of people who are not yet sick but may have been exposed to a contagious illness.
   - Quarantined individuals do not have symptoms and may not be sick or contagious.
   - Quarantine may involve a variety of control strategies, including short-term, voluntary home confinement; restrictions on travel for those who may have been exposed; or restrictions on passage into and out of an area.
2. ***People in isolation may be cared for in their homes, in hospitals, or in designated healthcare facilities.***[209] [210]
   - Isolation is a public health measure that separates sick people with a contagious disease from people who are not sick.
   - The decision of where to isolate a person is based on multiple factors, including severity of illness, need for testing, and appropriateness of a home environment for isolation purposes.
   - Seriously ill patients may be cared for in hospitals, while individuals with mild illness may be cared for at home.
   - Patients who aren't hospitalized should stay at home, except for getting medical care, and avoid contact with others until they are no longer contagious.
   - The decision to end home isolation should be made with your doctor.
3. ***Quarantine and isolation measures require the trust and participation of the public.***[206] [207]
   - In most cases, quarantine and isolation are done voluntarily, and participation of the public is necessary to help prevent the spread of contagious diseases.
   - Federal, state, and local health officials have the authority to enforce quarantine and isolation if necessary.

[206] https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/social-distancing.html

[207] https://www.cdc.gov/quarantine/index.html

[208] https://www.cdc.gov/coronavirus/2019-ncov/travelers/from-other-countries.html

[209] https://www.cdc.gov/coronavirus/2019-ncov/if-you-are-sick/steps-when-sick.html

[210] https://www.cdph.ca.gov/programs/cid/dcdc/pages/immunization/ncov2019.aspx

708. What actually happens in quarantine?

Key Messages/Shorter Answer (Soundbite):

1. *Quarantine is a public health measure used to limit the spread of contagious disease.*
2. *In most cases, individuals are asked to quarantine at home voluntarily.*
3. *Health departments can assist individuals with the quarantine process.*

Longer Answer:

1. ***Quarantine is a public health measure used to limit the spread of contagious disease.***[211]
   - Quarantine separates or restricts the movement of people who may have been exposed to a contagious illness.
   - Quarantined individuals do not have symptoms and may not be sick or contagious.
   - Quarantine is different from isolation, another common public health measure.
   - Isolation separates people infected with a contagious disease from other people.
2. ***In most cases, individuals are asked to quarantine at home voluntarily.***[212]
   - Public health officials regularly ask people who may have been exposed to a communicable disease to stay at home and avoid contact with other people.
   - Representatives from the health department will monitor these individuals and will provide further instructions as needed.
   - Implementing quarantine measures requires the trust and participation of the public to help prevent the spread of contagious diseases.
3. ***Health departments can assist individuals with the quarantine process.***[213]
   - Health departments have plans in place to assist individuals with the quarantine process and often work with community organizations to provide key services.
   - Health departments can assist individuals under quarantine with services that will allow them to stay home and limit their contact with others, including the delivery of food, prescriptions, and other basic necessities.
   - Other services, including mental health resources or assistance talking with an employer, may also be available.
   - If you have specific questions or are having difficulty remaining at home during your quarantine, contact your health department for assistance.

[211] https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/social-distancing.html

[212] https://www.cdc.gov/quarantine/index.html

[213] https://www.kingcounty.gov/depts/health/emergency-preparedness/professionals/~/media/depts/health/emergency-preparedness/documents/isolation-quarantine-response-plan-2014.ashx

709. What can individuals do to help slow the spread of COVID-19?

Key Messages/Shorter Answer (Soundbite):

1. *People should comply with the recommendations for social distancing and masks.*
2. *People should create a family plan of action based on current guidance.*
3. *People should practice every day basic hygiene to help prevent infection.*

Longer Answer:

1. ***People should comply with the recommendations for social distancing and masks.***[214]
   - In many communities, health officials are recommending social distancing actions that reduce face-to-face contact to limit exposure and illness.
   - Masks augment social distancing in helping slow the spread of COVID-19.
   - Targeted social distancing measures include canceling social gatherings and closing schools.
2. ***People should create a family plan of action based on current guidance.***[215]
   - Families, relatives, friends, and neighbors should discuss what to do if a COVID-19 outbreak occurs in their communities.
   - People should plan ways to care for those who might be at greater risk for serious complications, including the elderly and people with underlying conditions.
   - People should make arrangements for back-up care for children or elderly relatives in case their regular caregiver is sick, or their school is closed.
   - Parents should reach out to understand the school plan for continuing education and social services (such as student meal programs) during school dismissals.
3. ***People should practice every day basic hygiene to help prevent infection.***[216]
   - Wash your hands often with soap and water for at least 20 seconds.
     - If soap and water are not available, use a hand sanitizer with at least 60% alcohol.
   - Wash your hands, especially after going to the toilet, before eating, and after coughing, sneezing, or blowing your nose.
   - Avoid touching your eyes, nose, and mouth with unwashed hands and cover your coughs and sneezes with a sleeve or tissue.
   - Clean frequently touched surfaces around the house with regular household cleaners.
   - Follow your local and state health department for specific recommendations about how you can stay safe.
   - Follow expert advice, verify information, and avoid dangerous myths and rumors.[217]

[214] https://www.phila.gov/2020-02-29-what-to-expect-from-covid-19/

[215] https://www.cdc.gov/coronavirus/2019-ncov/daily-life-coping/get-your-household-ready-for-COVID-19.html

[216] https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/prevention.html

[217] https://www.who.int/emergencies/diseases/novel-coronavirus-2019/advice-for-public/myth-busters

710. Who is most at risk and how can individuals reduce their risk of COVID-19?

Key Messages/Shorter Answer (Soundbite):

1. *Older adults and people with underlying illnesses are especially vulnerable to COVID-19.*
2. *Practicing everyday preventive measures is very important.*
3. *If you know someone who is at increased risk, help them stay healthy.*

Longer Answer:

1. ***Older adults and people with underlying illnesses are especially vulnerable to COVID-19.***[218] [219] [220]
   - Older adults, and people who have an underlying condition making them more susceptible to COVID-19, are at higher risk for getting seriously ill or dying from COVID-19.
     - Underlying medical conditions include chronic lung disease, cancer, serious heart conditions, immunocompromised status, severe obesity, diabetes, chronic kidney disease undergoing dialysis, and sickle cell disease.
   - The vast majority of people with COVID-19 do not require hospital care.
   - A smaller percentage of people with COVID-19 get severely ill with respiratory problems like pneumonia.
2. ***Practicing everyday preventive measures is very important.***[221]
   - Wash your hands often with soap and water for at least 20 seconds.
     - Wash your hands, especially after going to the toilet, before eating, and after coughing, sneezing, or blowing your nose.
     - If soap and water are not available, use a hand sanitizer with at least 60% alcohol.
   - Avoid touching your eyes, nose, and mouth with unwashed hands.
   - Cover your coughs and sneezes with a sleeve or tissue and wear a face covering in public.
   - Clean frequently touched surfaces around the house with regular household cleaners.
   - Follow expert advice, verify information, and avoid dangerous myths.[222]
3. ***If you know someone who is at increased risk, help them stay healthy.***[223]
   - If you live with a person at increased risk, make sure to wash your hands every time you come in from outside.
   - Consider running errands, such as picking up groceries, for people at risk of severe COVID-19 illness, so they do not have to go out.
   - Everyone should take special precautions against COVID-19 when visiting the elderly in their homes or nursing homes.

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[218] https://www.cdc.gov/coronavirus/2019-ncov/need-extra-precautions/people-at-higher-risk.html

[219] https://www.cdc.gov/coronavirus/2019-ncov/need-extra-precautions/people-with-medical-conditions.html

[220] https://www.cdc.gov/coronavirus/2019-ncov/need-extra-precautions/people-with-medical-conditions.html

[221] https://www.cdc.gov/coronavirus/2019-ncov/daily-life-coping/get-your-household-ready-for-COVID-19.html

[222] https://www.who.int/emergencies/diseases/novel-coronavirus-2019/advice-for-public/myth-busters

[223] https://www.nytimes.com/article/prepare-for-coronavirus.html

711. What can employers do to help slow the spread of COVID-19?

Key Messages/Shorter Answer (Soundbite):

1. *Employers should plan for extended absences of employees and encourage teleworking.*
2. *Employers should apply infection control measures in the office.*
3. *Employers should stay informed and clearly communicate updates to employees.*

Longer Answer:

1. ***Employers should plan for extended absences of employees and encourage teleworking.***[224] [225]
   - Employers can cross-train employees to carry out key functions.
   - Employers should actively encourage sick employees to stay home.
   - Employers should ensure that sick leave policies are flexible and consistent with public health guidance and that employees are aware of these policies.
   - Employers should encourage teleworking and working from home where possible.
   - Many employers have successfully implemented extended absence and telework strategies.
2. ***Employers should apply infection control measures in the office.***[226] [227]
   - Employers should promote hand-washing by employees, contractors, and customers.
   - Employers should put hand sanitizer dispensers in prominent places around the workplace.
   - Surfaces (desks and tables) and objects (telephones and keyboards) should be wiped with disinfectant regularly.
   - Employees who report symptoms of COVID-19 at work should be separated from others and immediately sent home.
   - Employers should designate separate areas where sick employees can temporarily be isolated.
   - Many employers have successfully implemented infection control measures in the office.
3. ***Employers should stay informed and clearly communicate updates to employees.***[228]
   - Employers should determine how to get updated information from credible sources and relay information about the outbreak to employees and business partners.
   - Employers should direct employees to U.S. State Department[229] and CDC travel advisories.[230]
   - Employers should reinforce key preventive measures for employees to include frequent hand washing and staying home while sick.
   - Employers should stay current with local and state policies regarding returning to work.
   - Many employers have benefited from implementing regular COVID-19 communications.

[224] https://www.telework.gov/guidance-legislation/telework-guidance/telework-guide/

[225] https://www.natlawreview.com/article/9-telecommuting-tips-employers-covid-19-spreads-across-united-states

[226] https://www.osha.gov/SLTC/covid-19/controlprevention.html

[227] https://www.who.int/docs/default-source/coronaviruse/getting-workplace-ready-for-covid-19.pdf

[228] https://www.cdc.gov/coronavirus/2019-ncov/community/guidance-business-response.html

[229] https://travel.state.gov/content/travel/en/traveladvisories/ea/covid-19-information.html

[230] https://www.cdc.gov/coronavirus/2019-ncov/travelers/index.html

712. Should people go outdoors, including to exercise?

Key Messages/Shorter Answer (Soundbite):

1. *Getting outdoors is one of the best ways to keep one's mind and body healthy.*
2. *When going outside the house, people should take steps to reduce the risk of getting or spreading COVID-19.*
3. *Staying physically active is a healthy coping strategy for COVID-19.*

Longer Answer:

1. ***Getting outdoors is one of the best ways to keep one's mind and body healthy.***[231]
   - In many areas, people can visit parks, trails, open spaces, and be in nature to relieve stress.
     - People should check state and local guidance and restrictions.
   - Scientific evidence indicates that spending time outdoors is important to children's health.
   - When interacting with others, indoor spaces are riskier than outdoor spaces where it may be harder to keep people apart, and there is less ventilation.
   - People who are sick should stay home.
   - People should wash their hands after being outdoors to protect themselves from COVID-19.
2. ***When going outside the house, people should take steps to reduce the risk of getting or spreading COVID-19.***[232] [233] [234]
   - If outdoors, people must maintain at least six feet from others.
     - When deciding where to go outside, people should avoid busy areas and confined spaces that might make it hard to keep a distance from others.
   - In general, the more closely you interact with others, and the longer that interaction, the higher the risk of COVID-19 spread.
   - People should wear a face covering if in areas where social distancing may be difficult.
   - People should use hand sanitizers or antiseptic wipes for public surfaces.
   - People should avoid settings where noise interferes with talking and encourages getting closer than 6 feet to converse.
3. ***Staying physically active is a healthy coping strategy for COVID-19.***
   - Physical activity can help boost mood, reduce stress, and strengthen the immune system.
   - Physical activity includes all forms of active recreation, sports participation, cycling and walking, as well as activities you do at work and around the home and garden.
   - There are ways to stay active without going outdoors, such as workout videos, online fitness classes, household chores, and even physically active video games.

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[231] https://www.welldoc.com/staying-active-while-social-distancing/

[232] https://www.cdc.gov/coronavirus/2019-ncov/daily-life-coping/essential-goods-services.html

[233] https://www.cdc.gov/coronavirus/2019-ncov/community/organizations/business-employers/bars-restaurants.html

[234] https://www.help.senate.gov/hearings/covid-19-update-on-progress-toward-safely-getting-back-to-work-and-back-to-school

800 Series: Media Questions

801. What is expected from the news media regarding COVID-19?

Key Messages/Shorter Answer (Soundbite):

1. *News media are vital for getting information about COVID-19 to interested and affected populations.*
2. *News media are a useful platform for reaching many people during a COVID-19.*
3. *Effective media communication enables public health officials to help the public make informed and better decisions.*

Longer Answer:

1. ***News media are vital for getting information about COVID-19 to interested and affected populations.***
    - News media play a critical role in keeping the public informed about COVID-19.
    - News media serve as an important source of information for the public about changes in the COVID-19 situation.
    - News media provide key information about public concerns to public health officials.
    - News media can help inform the public about COVID-19 guidance, recommendations, and available services.
2. ***News media are a useful platform for reaching many people during a COVID-19.***
    - News media can quickly provide urgent information during a major COVID-19 outbreak.
    - New media can reach large numbers of people during a major COVID-19 outbreak.
    - News media can help public health officials reach larger target audiences during a major COVID-19 outbreak.
    - News media can assist public health officials in countering rumors and misinformation.
    - News media can assist public health officials in encouraging appropriate behaviors during a major COVID-19 outbreak.
    - News media should verify claims and instruct people to follow expert advice, verify information, and avoid dangerous myths and rumors.[235]
3. ***Effective media communication enables public health officials to help the public make informed and better decisions.***
    - News media can enhance public confidence in the ability of public health officials to deal with COVID-19.
    - News media can raise awareness of actual or potential risks.
    - News media can direct readers and viewers to federal, state, and local public health websites and other trusted sources of information about COVID-19.

[235] https://www.who.int/emergencies/diseases/novel-coronavirus-2019/advice-for-public/myth-busters

802. Has the news media over-reacted and sensationalized COVID-19?

Key Messages/Shorter Answer (Soundbite):

1. *Characteristics of COVID-19 generate intense media interest.*
2. *COVID-19 creates many opportunities for news media sensationalism.*
3. *News media sensationalism can be tempered by effective risk and crisis communication.*

Longer Answer:

1. ***Characteristics of COVID-19 generate intense media interest.***
   - A global pandemic caused by a novel coronavirus will generate much news media interest.
   - COVID-19 is a new threat to health in the United States and the world.
   - Invisible, deadly risk agents such as COVID-19 generate high levels of public fear and anxiety.
   - The global COVID-19 outbreak has many scientific uncertainties.
2. ***COVID-19 creates many opportunities for news media sensationalism.***
   - Many actions related to COVID-19 taken are unprecedented and are often sensationalized when reported by the media.
   - Missteps, mistakes, and disagreements are likely to be sensationalized by parts of the news media.
   - COVID-19 presents the news media with many dramatic photographic and video opportunities.
   - News media are often messengers who are reporting information that can often be interpreted as sensational.
3. ***News media sensationalism can be tempered by effective risk and crisis communication.***
   - News media should verify information, instruct people to follow expert advice, and avoid repeating or endorsing dangerous myths and rumors.[236]
   - Public health officials can temper media sensationalism by providing timely, accurate, transparent, and credible information.
   - Public health officials can temper media sensationalism by acknowledging uncertainties.
   - Public health officials can temper media sensationalism by being willing to admit mistakes.
   - Public health can temper media sensationalism by expressing authentic empathy and acknowledging emotions.

[236] https://www.who.int/emergencies/diseases/novel-coronavirus-2019/advice-for-public/myth-busters

900 Series: Infection and Illness Questions

901. Why do some people have very severe COVID-19 illness while most people do not?

Key Messages/Shorter Answer (Soundbite):

1. *Most experts agree that there may be no single reason for why some people are more severely affected than others.*
2. *Experts believe that age, health, genetics, access to quality care, and underlying conditions are important to the severity of COVID-19.*
3. *Experts believe that environmental factors are important to the severity of COVID-19.*

Longer Answer:

1. ***Most experts agree that there may be no single reason for why some people are more severely affected than others.***
    - There have been millions of COVID-19 cases to date, and the severity has varied greatly.
    - The question of why the virus has overwhelmed some people and left others unaffected is a puzzle that has led to numerous theories and speculations with as yet no definitive answers.
    - The answer to the question of COVID-19's variable severity could determine how society can best protect itself and the duration of strong preventive measures.
2. ***Experts believe that age, health, genetics, access to healthcare, and underlying conditions are important to the severity of COVID-19.***[237]
    - Young people are more likely to experience mild or no symptoms and continue to spread COVID-19.
    - Good health can lessen the impact of the virus among those who are infected.
        - Underlying conditions — notably hypertension, diabetes, and obesity — can worsen the severity of COVID-19.
    - Shortages of COVID-19 tests can result in undercounting the number of COVID-19 victims.
    - It is unclear why some patients have remained stable or appeared to be recovering and then suddenly develop severe symptoms.
3. ***Experts believe that environmental factors are important to the severity of COVID-19.***[238]
    - Infections are more likely to occur in crowded living situations where there are a greater number of infected people, such as ships and dormitories.
    - Scientists believe that warmer temperatures, humidity, and sunlight may be severity factors, but much is still unknown.
        - The virus that causes COVID-19 appears to be so contagious that even if hot outdoor temperatures, sunlight, and humidity slow its spread, many people will still become infected.
    - Experts believe that virus mutations will change COVID-19.
    - Social distancing, face protection measures, and limits on gathering can affect how many people become infected.

[237] https://www.cdc.gov/coronavirus/2019-ncov/need-extra-precautions/people-at-higher-risk.html

[238] https://www.sciencemag.org/news/2020/07/pandemic-virus-slowly-mutating-it-getting-more-dangerous

902. Why are rates of infection, severe illness, and death from COVID-19 higher among particular racial and ethnic minorities?

Key Messages/Shorter Answer (Soundbite):

1. *Data indicate that particular racial and ethnic minorities are at higher risk of COVID-19.*
2. *Living conditions, work circumstances, underlying health conditions, and access to care contribute to higher rates of COVID-19 disease among particular racial and ethnic minorities.*
3. *Authorities and the public can help address COVID-19 racial and minority disparities.*

Longer Answer:

1. ***Data indicate that particular racial and ethnic minorities are at higher risk of COVID-19.***[236] [239]
    - COVID-19 infection, hospitalization, and death rates are highest among American Indian or Alaskan Natives, Hispanic or Latino persons, and Black or African American persons.
    - According to the CDC, when compared to white populations:
        - Hispanic or Latino persons are nearly three times as likely to get infected.
        - American Indian or Alaskan natives are more than five times as likely to be hospitalized.
        - Black or African American persons are more than twice as likely to die from COVID-19.
2. ***Living conditions, work circumstances, underlying health conditions, and access to care contribute to higher rates of COVID-19 disease among particular racial and ethnic minorities.***[240]
    - Living conditions for particular racial and ethnic minorities, such as densely populated housing, may make it difficult to follow prevention measures such as social distancing.
    - Economic circumstances for particular racial and ethnic minorities, such as employment in essential or service industries, limited opportunities for working remotely, less access to paid sick leave, and limited health insurance coverage may all lead to higher rates of COVID-19.
    - For particular racial and ethnic minorities, underlying health conditions such as cardiovascular disease, diabetes, obesity, or chronic pulmonary disease may contribute to higher rates of COVID-19.
    - Limited access to healthcare for some particular racial and ethnic minorities, due to poor health insurance coverage, language barriers, and financial factors, may contribute to higher rates of COVID-19 disease and severe illness.
3. ***Authorities and the public can help address COVID-19 racial and minority disparities.***[237]
    - Health officials are collecting data that can help prevent and reduce health disparities in particular racial and ethnic minorities.
    - Public health professionals can ensure that communication about COVID-19 and its impact on different population groups is frequent, clear, and transparent.
    - Community organizations can reinforce health recommendations about COVID-19.
    - Healthcare providers can connect patients with community resources and promote a trusted relationship by encouraging patients to call and ask questions.

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[239] https://www.cdc.gov/coronavirus/2019-ncov/covid-data/investigations-discovery/hospitalization-death-by-race-ethnicity.html

[240] https://www.cdc.gov/coronavirus/2019-ncov/need-extra-precautions/racial-ethnic-minorities.html

1000 Series: Mitigation and Long-term Response Questions

1001. Are there any restrictions on people who have recovered from a confirmed COVID-19 infection?

Key Messages/Shorter Answer (Soundbite):

1. *Public health restrictions for returning to work and everyday life are based upon either symptoms, time, or testing.*
2. *Scientists are still uncertain whether people who have recovered from COVID-19 have protective immunity.*
3. *A person recovered from COVID-19 should follow public health guidelines and their healthcare provider's advice regarding work and everyday life.*

Longer Answer:

1. ***Public health restrictions for returning to work and everyday life are based upon either symptoms, time, or testing.***[241] [242]
    - A person is considered recovered from COVID-19 after they no longer have fever without the use of fever-reducing medications and have improvement in respiratory symptoms.
    - Depending on the severity of the COVID-19 illness, people should continue to monitor their health after symptoms disappear.
    - Even after symptoms are gone, small amounts or traces of the virus that causes COVID-19 may remain in a person's body for days.
    - Public health authorities provide updates on how long people should wait after their first positive COVID-19 test before lifting restrictions.
    - Given challenges with testing, guidelines regarding recovery criteria are rapidly changing.
2. ***Scientists are still uncertain whether people who have recovered from COVID-19 have protective immunity.***[243]
    - Immune response to COVID-19 is not clearly understood, and reinfection may be possible.
    - Antibodies to the virus that causes COVID-19 could provide some protection, but scientists need more data regarding immunity.
    - Knowing whether people are immune to COVID-19 after they recover is important for determining what, if any, restrictions are needed.
3. ***A person recovered from COVID-19 should follow public health guidelines and their healthcare provider's advice regarding work and everyday life.***
    - Upon returning to everyday life or work, people should still wear a face covering because small amounts or traces of the virus that causes COVID-19 may remain.
    - People should continue to follow public health guidelines regarding social distancing, washing hands, keeping surfaces clean, avoiding groups, and not visiting people in high-risk groups.
    - Some people who have recovered from COVID-19 may be advised by their doctors or employers to work remotely and maintain social distancing for an additional time period.

[241] https://www.cdc.gov/coronavirus/2019-ncov/if-you-are-sick/end-home-isolation.html

[242] https://www.cdc.gov/coronavirus/2019-ncov/hcp/disposition-in-home-patients.html

[243] https://www.who.int/news-room/commentaries/detail/immunity-passports-in-the-context-of-covid-19

1002. How long will it be necessary to have social distancing in the U.S.?

Key Messages/Shorter Answer (Soundbite):

1. *Social distancing will be necessary until there is widespread testing, preventive medicines, treatments, and vaccines against COVID-19.*
2. *Targeted social distancing is likely to be recommended while COVID-19 continues to spread.*
3. *If COVID-19 cannot be controlled under relaxed social distancing, a return to more strict measures may be needed.*

Longer Answer:

1. ***Social distancing will be necessary until there is widespread testing, preventive medicines, treatments, and vaccines against COVID-19.***[244]
    - Social distancing means keeping space between yourself and others.
        - Social distancing includes maintaining 6 feet from others, staying home, limiting large groups, rearranging seating in offices and schools, and canceling or modifying events.
    - Experts believe a critical resource for slowing COVID-19 will be the public, whose buy-in and sense of personal responsibility is needed for effective social distancing and testing.
    - Experts are calling for widespread testing to identify, isolate, and treat those infected, find the contacts of infected people, and better understand COVID-19.
    - Social distancing is especially important with COVID-19 because the virus can be spread by people with no or very mild symptoms.
2. ***Targeted social distancing is likely to be recommended while COVID-19 continues to spread.***
    - Social distancing greatly reduces the risk of catching the virus or passing it to someone else.
    - Social distancing to prevent the circulation of COVID-19 can be reduced when a state or community has essentially no new cases or deaths for at least two weeks.
    - Public health departments and experts will be working with communities and healthcare providers to limit the spread of COVID-19 through social distancing.
    - Like influenza, the virus that causes COVID-19 will likely become a chronically circulating coronavirus in humans like the viruses that cause the common cold.
3. ***If COVID-19 cannot be controlled under relaxed social distancing, a return to more strict measures may be needed.***[245]
    - Relaxed social distancing means less strict implementation of accepted measures.
    - Targeted social distancing will likely persist in healthcare settings and COVID-19 hot zones.
    - In the 1918 influenza pandemic, premature relaxation of social distancing was associated with a sharp increase in cases and deaths.
    - With evidence of COVID-19 control, such as flattening the curve, social distancing can be more flexible and targeted.
    - Until a vaccine is widely available, targeted social distancing will likely be needed.

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[244] https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/how-covid-spreads.html

[245] https://www.nationalgeographic.com/history/2020/03/how-cities-flattened-curve-1918-spanish-flu-pandemic-coronavirus/

1003. If social distancing works, will we have another spike or continued cases?

Key Messages/Shorter Answer (Soundbite):

1. *If most people follow social distancing recommendations, large increases in COVID-19 infections should be prevented.*
2. *Targeted social distancing can help prevent large increases in infections when combined with other public health recommendations.*
3. *If there is a large increase in COVID-19 infections, then communities or states may return to more strict social distancing measures.*

Longer Answer:

1. ***If most people follow social distancing recommendations, large increases in COVID-19 infections should be prevented.***[246]
    - COVID-19 spikes can be prevented with effective social distancing.
    - Not adhering to community-recommended social distancing guidelines increases the risk of becoming infected and the risk for spikes or outbreaks of COVID-19.
    - Social distancing means keeping space between yourself and others.
    - Since people can spread the virus before they know they are sick, it is important to implement effective social distancing, especially for people who are at high risk of severe COVID-19.
    - Public support, personal responsibility, and voluntary participation are critical for effective social distancing to prevent COVID-19 spikes.
    - Public health authorities and communities are exploring the best methods to enforce social distancing to prevent COVID-19 spikes, including punitive measures.
2. ***Targeted social distancing can help prevent large increases in infections when combined with other public health recommendations.***
    - Social distancing to prevent spikes will be most effective when combined with widespread and effective testing, preventive medicines, and safe and effective treatments and vaccines.
    - Social distancing can help slow COVID-19 but cannot prevent new infections and outbreaks.
    - Public health authorities are exploring different combinations of social distancing measures.
        - Several states have lifted stay at home orders and still recommend wearing masks, maintaining at least 6 feet from others, and avoiding large gatherings.
3. ***If there is a large increase in COVID-19 infections, then communities or states may return to more strict social distancing measures.***
    - Social distancing will likely persist in healthcare settings and COVID-19 hot zones.
        - Hospitals, healthcare facilities, nursing homes, and places with older patients and people with chronic diseases need to protect those vulnerable to severe COVID-19.
    - Once effective testing, contact tracing, and isolation/quarantine are established, social distancing can be more flexible and precise.
    - Until a safe and effective vaccine is available, some social distancing will likely be needed.

[246] https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/social-distancing.html

1004. When will there be a return to everyday life and work activities?

Key Messages/Shorter Answer (Soundbite):

1. *A return towards everyday life and work will occur when there is widespread testing, preventive medicines, treatments, and vaccines against COVID-19.*
2. *A return towards everyday life and work will occur when COVID-19 ceases to spread.*
3. *Until COVID-19 is controlled, a return to everyday life and work will look different.*

Longer Answer:

1. ***A return towards everyday life and work will occur when there is widespread testing, preventive medicines, treatments, and vaccines against COVID-19.***[247]
    - Experts believe a return towards everyday life and work will occur with widespread COVID-19 testing to facilitate identification, isolation, treatment, contact tracing, and identification of antibodies that may indicate immunity.
    - Experts believe a return towards everyday life and work will occur when safe and effective medicines and vaccines are available.
        - Many experts believe it could be 12 to 18 months before a safe and effective vaccine is approved and widely available.
    - Experts believe that a return towards everyday life and work will be facilitated by technological solutions, including better air circulation, facial scanning for fever, anti-viral electrostatic coatings, and touchless knobs.
2. ***A return towards everyday life and work will occur when COVID-19 ceases to spread.***[248]
    - A return towards everyday life and work will begin when a state or community has essentially no new COVID-19 cases or deaths for a time period specified by public health authorities.
    - Experts suspect that the coronavirus that causes COVID-19 is likely to join other coronaviruses that continue to circulate, but much is still unknown.
    - Localized COVID-19 outbreaks are likely to continue because most people are not yet immune.
3. ***Until COVID-19 is controlled, a return to everyday life and work will look different.***
    - Everyday life and work are likely to be different for the foreseeable future and may include selective social distancing and technological innovations to reduce contact.
    - Everyday life and work are likely to be different in healthcare settings and COVID-19 hot zones.
        - Hospitals, healthcare facilities, nursing homes, and places with older patients and people with chronic diseases need to protect vulnerable people.
    - Experts are uncertain as to when it would be safe to allow large gatherings and crowds, such as for sporting and entertainment events, without careful social distancing.
    - Once effective testing, contact tracing, and isolation/quarantine are established, people can start returning towards everyday life and work with relaxed social distancing measures.
    - Until a safe and effective vaccine is available, targeted social distancing will likely be needed.

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[247] https://www.cdc.gov/coronavirus/2019-ncov/cases-updates/summary.html

[248] https://www.who.int/emergencies/diseases/novel-coronavirus-2019

1005. When and how will the COVID-19 pandemic end?

Key Messages/Shorter Answer (Soundbite):

1. *It is too early to know whether COVID-19 will persist as a pandemic next year.*
2. *The COVID-19 pandemic will end sooner with widespread testing, preventive medicines, contact tracing, treatments, and vaccines.*
3. *It is believed the COVID-19 pandemic will end sooner if most people in most countries take actions to prevent or reduce its spread.*

Longer Answer:

1. ***It is too early to know whether COVID-19 will persist as a pandemic next year.***
    - If there are many people infected with COVID-19 and if infections are occurring at a high rate in many places across the globe, it is possible it will continue to be considered a pandemic.
    - In the near future, the world could enter a "post-pandemic" period, which means the virus that causes COVID-19 becomes endemic — that is, circulating in the world and causing infections similar to seasonal flu and colds.
    - If the number of cases and places with COVID-19 decreases significantly, it is unlikely that COVID-19 will persist as a pandemic.
    - The World Health Organization will likely continue to classify COVID-19 as a pandemic until there are no longer large outbreaks of new cases and deaths in many countries for a specified time period.
2. ***The COVID-19 pandemic will end sooner with widespread testing, preventive medicines, contact tracing, treatments, and vaccines.***[249]
    - Most experts believe the COVID-19 pandemic will end with herd immunity.
        - Most experts believe herd immunity is achieved when 60-70% of the population has immunity to the virus that causes COVID-19.
        - Herd immunity can be achieved through both natural infection and vaccination.
    - Experts believe the COVID-19 pandemic will end sooner with a safe and effective vaccine.
        - It may be 12 to 18 months before a safe and effective vaccine becomes widely available.
    - Experts believe that the COVID-19 pandemic will end sooner with innovations including better air circulation, facial scanning for fever, anti-viral electrostatic coatings, and touchless knobs.
    - For every indication of controlling COVID-19, new outbreaks have occurred elsewhere.
3. ***It is believed the COVID-19 pandemic will end sooner if most people in most countries take actions to prevent or reduce its spread.***
    - To help end the COVID-19 sooner, people should practice social distancing, wash their hands often, avoid touching their faces, and cover coughs and sneezes.
    - To help end the COVID-19 pandemic sooner, people should wear masks in public, clean frequently touched surfaces, follow expert guidance, and avoid dangerous myths.

[249] https://www.cdc.gov/coronavirus/2019-ncov/cases-updates/summary.html

Appendices

Appendix A: COVID-19 Resources

Webpages:

CDC

- CDC's COVID-19 homepage – including latest updates and overview.
  https://www.cdc.gov/coronavirus/2019-ncov/index.html
- CDC COVID Data Tracker.
  https://covid.cdc.gov/covid-data-tracker/#cases_casesinlast7days
- How COVID-19 Spreads (update)
  https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/how-covid-spreads.html
- Resources for State, Local, Territorial, and Tribal Health Departments.
  https://www.cdc.gov/coronavirus/2019-ncov/php/index.html
- Operating schools during COVID-19: CDC's Considerations.
  https://www.cdc.gov/coronavirus/2019-ncov/community/schools-childcare/schools.html
- Coronavirus Travel Information.
  https://www.cdc.gov/coronavirus/2019-ncov/travelers/index.html
- Coronavirus Information for Healthcare Professionals.
  https://www.cdc.gov/coronavirus/2019-nCoV/hcp/index.html
- Interim Infection Prevention and Control Guidance for Veterinary Clinics During the COVID-19 Response.
  https://www.cdc.gov/coronavirus/2019-ncov/community/veterinarians.html
- Laboratories and Diagnostic Testing of Specimens.
  https://www.cdc.gov/coronavirus/2019-nCoV/lab/index.html
- Preventing Spread of COVID-19 in Communities.
  https://www.cdc.gov/coronavirus/2019-ncov/community/index.html
- Coronavirus Communication Resources.
  https://www.cdc.gov/coronavirus/2019-ncov/communication/index.html
- CDC Transcripts and Press Releases on Coronavirus and COVID-19.
  https://www.cdc.gov/media/dpk/diseases-and-conditions/coronavirus/coronavirus-2020.html

Continued – Appendix A: COVID-19 Resources

WHO

- Technical guidance by topic and by date. https://www.who.int/emergencies/diseases/novel-coronavirus-2019/technical-guidance
- Risk communication and community engagement (RCCE) readiness and response to the 2019 novel coronavirus (2019-nCoV). Interim guidance, March 19, 2020. https://www.who.int/publications-detail/risk-communication-and-community-engagement-readiness-and-initial-response-for-novel-coronaviruses-(-ncov)
- Coronavirus disease (COVID-2019) press briefings and press conferences, including transcripts. https://www.who.int/emergencies/diseases/novel-coronavirus-2019/media-resources/press-briefings
- Coronavirus disease (COVID-2019) situation reports. https://www.who.int/emergencies/diseases/novel-coronavirus-2019/situation-reports/

Background Research – Articles and White Papers:

- Epidemiological and clinical characteristics of 99 cases of 2019 novel coronavirus pneumonia in Wuhan, China: a descriptive study. Prof. Nanshen Chen, January 30, 2020. https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(20)30211-7/fulltext
- A familial cluster of pneumonia associated with the 2019 novel coronavirus indicating person-to-person transmission: a study of a family cluster, Jasper Fuk-Woo Chan et al. February 24, 2020. https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(20)30154-9/fulltext
- Transmission of 2019-nCoV Infection from an Asymptomatic Contact in Germany. March 5, 2020. https://www.nejm.org/doi/full/10.1056/NEJMc2001468
- Temporal profiles of viral load in posterior oropharyngeal saliva samples and serum antibody responses during infection by SARS-CoV-2: an observational cohort study. May 1, 2020. https://www.thelancet.com/journals/laninf/article/PIIS1473-3099(20)30196-1/fulltext
- Physical distancing, face masks, and eye protection to prevent person-to-person transmission of SARS-CoV-2 and COVID-19: a systematic review and meta-analysis. June 27, 2020. https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(20)31142-9/fulltext
- Reopening US Schools in the Era of COVID-19: Practical Guidance From Other Nations. June 30, 2020. https://jamanetwork.com/channels/health-forum/fullarticle/2767982
- Long-term Health Consequences of COVID-19. https://jamanetwork.com/journals/jama/fullarticle/2771581

Continued – Appendix A: COVID-19 Resources

Other Resources:

- Map/dashboard: WHO Novel Coronavirus (COVID-19) Dashboard. https://covid19.who.int/
- Map/dashboard: Coronavirus COVID-19 Global Cases by Johns Hopkins CSSE. https://www.arcgis.com/apps/opsdashboard/index.html#/bda7594740fd40299423467b48e9ecf6
- New York Times, Coronavirus Drug and Treatment Tracker. https://www.nytimes.com/interactive/2020/science/coronavirus-drugs-treatments.html
- New York Times, Coronavirus Vaccine Tracker. https://www.nytimes.com/interactive/2020/science/coronavirus-vaccine-tracker.html

Appendix B: Message Mapping

I. Overview

"Message maps" are risk communication tools used to help organize complex information and make it easier to express current knowledge. The development process distills information into easily understood messages written at approximately 6th- to 8th-grade reading levels.

Messages are presented initially in no more than 3-5 short sentences that convey 3-5 key messages in as few words as possible. The approach is based on surveys showing that lead or front-page media and broadcast stories usually convey only 3 key messages, usually in less than 9 seconds for broadcast media or 27 words for print.

Each key message has 3-5 supporting messages. These can be used when and where appropriate to provide context for the issue being mapped.

II. SAMPLE MESSAGE MAP – SMALLPOX (WITH KEYWORDS IN ITALICS)

Stakeholder: Public
Question or Concern: How contagious is smallpox?

a. Bullet format message map

Shorter Answer:

- Smallpox *spreads slowly* compared to other diseases.
- The slow spread of smallpox allows time *to find those infected*.
- People infected with smallpox *can be vaccinated* to prevent illness.

Longer Answer:

- Smallpox *spreads slowly* compared to other diseases.
  - People are only infectious when the rash appears.
  - Smallpox typically requires hours of face-to-face contact.
  - There are no smallpox carriers without symptoms.

- The slow spread of smallpox *allows time to find those infected*.
  - The time period before smallpox symptoms appear is 10–14 days
  - Resources are available for finding people who may have become infected with smallpox.
  - Finding people who have been exposed to smallpox and vaccinating them has proven successful in the past.

- People infected with smallpox *can be vaccinated* to prevent illness.
  - People who have never been vaccinated are the most important to vaccinate.
  - Adults who were vaccinated for smallpox as children may still have some immunity.
  - Adequate smallpox vaccine is on hand.

Continued – Appendix B: Message Mapping

b. Box Format Message Map

Stakeholder: Public ***Question or Concern: How contagious is smallpox?***		
Key Message 1	**Key Message 2**	**Key Message 3**
Smallpox *spreads slowly* compared to other diseases.	**The slow spread of smallpox allows *time to find* those infected.**	**People infected with smallpox *can be vaccinated* to prevent illness.**
Supporting Information 1-1	**Supporting Information 2-1**	**Supporting Information 3-1**
People are only infectious when the rash appears.	The time period before smallpo symptoms appear is 10–14 days	People who have never been vaccinated are the most important to vaccinate.
Supporting Information 1-2	**Supporting Information 2-2**	**Supporting Information 3-2**
Smallpox typically requires hours of face-to-face contact.	Resources are available for finding people who may have become infected with smallpox.	Adults who were vaccinated as children may still have some immunity.
Supporting Information 1-3	**Supporting Information 2-3**	**Supporting Information 3-3**
There are no smallpox carriers without symptoms.	Finding people who have been exposed to smallpox and vaccinating them has proven successful in the past.	Adequate vaccine is on hand.

Continued – Appendix B: Message Mapping

III. Nine Principles of Message Mapping

1) Limiting the number of key messages to a maximum of 3-5 using as few words as possible, ideally no more than 9 seconds or 27 words to express the necessary information.
2) Constructing messages that can be easily understood by an adult with a 6th- to 8th-grade education. This can be tested using the "readability" utility in word-processing programs.
3) Adhering to the "primacy/recency" or "first/last" principle. This principle states that the most important messages should occupy the first and last position in a list.
4) Citing third parties or sources that would be perceived as credible by the receiving audience.
5) Providing a preamble to the message map that indicates genuine empathy, listening, caring, and compassion – crucial factors in establishing trust in high-concern, high-stress situations.
6) Developing graphics, visual aids, analogies, and narratives (such as personal stories), which can increase an individual's ability to hear, understand, and recall a message by more than 50%.
7) Constructing messages while recognizing the dominant role of negative thinking in high-concern situations. Examples include: avoiding unnecessary, indefensible, or non-productive uses of absolutes, and of the words "no", "not", "never", "nothing" and "none"; balancing or countering a negative key message with positive, constructive, or solution-oriented key messages; and providing three or more positive points to counter a single negative point or bad news.
8) Presenting the full message map using the repetitive structure found in the "Tell me, Tell me more, Tell me again model" (the "Triple T Model"): telling people the information in summary form (i.e., the three key messages; telling people more (i.e., the supporting information); and telling people again what was told in summary form (i.e., repeat the three key messages).
9) Developing key messages and supporting information that address important risk perception, outrage, and fear factors such as trust, benefits, control, voluntariness, dread, fairness, reversibility, catastrophic potential, effects on children, morality, origin, and familiarity.

Appendix C: Media Interviews: Tips and Pitfalls

Authors:

Dr. Vincent T. Covello, Center for Risk Communication and CrisisCommunication.net
Dr. Randall N. Hyer, Center for Risk Communication and CrisisCommunication.net

1. Overview

In general, the media is interested in the following:

- Human interest stories
- Bad news more than good news
- People's perspectives
- Yes or no/safe or unsafe answers
- Front-page news stories.

With a disease outbreak, the media is likely to show increased interest in:

- Actions and developments that impact or would be of interest to their readers and viewers
- The reasons for state and local public health recommendations and actions, including the basis for implementing and changing them
- Access to public health and medical experts who can explain the evidence and rationale behind public health actions and provide helpful insights for media audience members
- Timely access to public health officials and experts
- Issues where conflict and disagreements exist

2. Preparing for the Media Interview

- The media will be seeking information on: Who? What? When? Where? Why? How?
- To maximize your impact, prepare and practice delivering your key message.
- For broadcast media: 27 words or 9-second "sound bite."
- For print media: 1 to 3 key messages.

Continued – Appendix C: Media Interviews: Tips and Pitfalls

3. Before, During, and After a Media Interview

a. Before the Media Interview

Do:

- Ask who will be conducting the interview.
- Ask which subjects they want to cover.
- Caution them when you are not the correct person to interview because there are topics you cannot discuss (because of lack of knowledge, etc.).
- Inquire about the format and duration.
- Ask who else will be interviewed.
- Prepare the key take away messages you want the media to report.
- Practice.

Don't:

- Tell the news organization which reporter you prefer.
- Ask for all the questions in advance.
- Insist they do not ask about certain subjects.
- Demand your remarks not be edited.
- Insist an adversary not be interviewed.
- Think that keeping a lid on the story will prevent the media from finding out.
- Assume it will be easy.

b. During the Media Interview

Do:

- Express caring, concern, or empathy.
- Acknowledge the legitimacy of people's emotions and concerns.
- Be honest and accurate.
- Stick to your key message(s).
- State your conclusions first, then provide supporting data.
- Offer to get information you don't have.
- Stress the facts.
- Give a reason if you can't discuss a subject.
- Correct mistakes by stating you would like an opportunity to clarify.

Continued – Appendix C: Media Interviews: Tips and Pitfalls

Don't:

- Lie or try to cloud the truth.
- Improvise or dwell on negative allegations.
- Raise issues you don't want to see in the story.
- Fail to think it through ahead of time.
- Guess.
- Use jargon or assume the facts speak for themselves.
- Speculate or discuss hypothetical situations.
- Lose your composure.
- Say, "No comment."
- Demand an answer not be used.

c. After the Media Interview

Do:

- Remember you are still on the record.
- Be helpful. Volunteer to get information. Make yourself available.
- Respect deadlines.
- Watch for and read the resulting report.
- Call the reporter to politely point out inaccuracies, if any.

Don't:

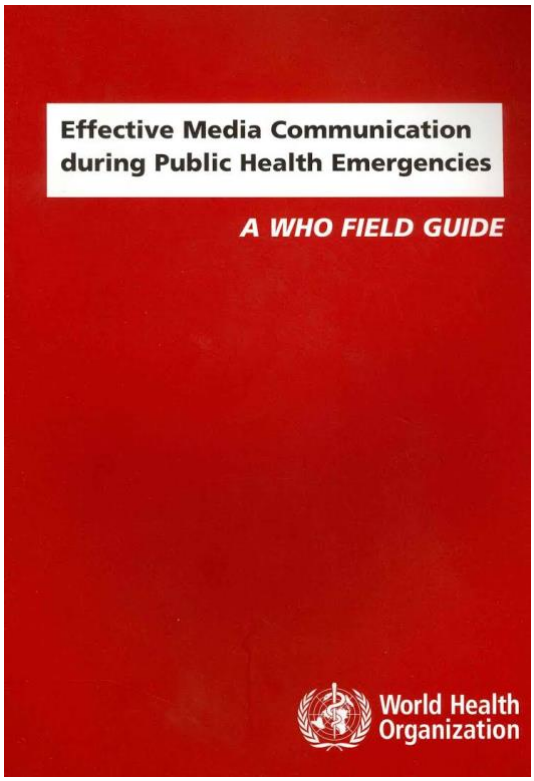
- Assume the interview is over or the equipment is off.
- Refuse to talk further.
- Ask, "How did I do?"
- Ask to review the story before publication or broadcast.
- Complain to the reporter's boss first.

Appendix D: Periodic Table for High Concern Communication

Appendix E: WHO Guidebooks on "Effective Media Communication during Public Health Emergencies"

Handbook

The handbook describes a seven-step process to assist officials and others in communicating effectively through the media during emergencies.



- Handbook (pdf, 448 kb)

Field Guide

The Field Guide is a shortened version of the Handbook. It highlights the practical aspects of the seven-step approach.

- Field Guide (pdf, 218 kb)

Wall Chart

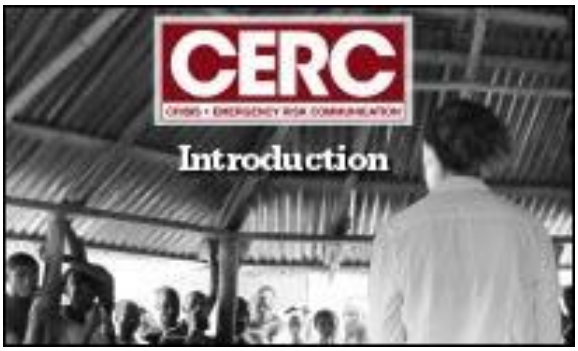
The chart shows the seven-step approach and provides easily recalled key information and advice.

- Wall Chart (pdf, 218 kb)

Appendix F: CDC's Crisis and Emergency Risk Communication (CERC) Toolkit

Manual

The CERC Manual describes the principles of crisis and emergency risk communication and how to address different challenges while communicating during a crisis or emergency. It provides guidance for all stages of an emergency and can be applied to any public health emergency.



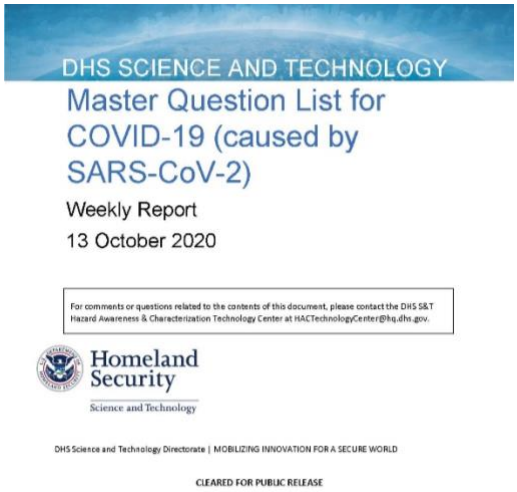
- Online Handbook:

  https://emergency.cdc.gov/cerc/manual/index.asp

Appendix G: Master Question List for COVID-19 (caused by SARS-CoV-2)

Weekly Report

This DHS Science and Technology Directorate (DHS S&T) developed Master Question List summarizes current information known about COVID-19. The document can assist government decision makers in the operational response to COVID-19 and allow structured and scientifically guided discussions.



- Online Handbook: https://www.dhs.gov/sites/default/files/publications/mql_sars-cov-2_-_cleared_for_public_release_20201027.pdf

Appendix H: Coronavirus disease (COVID-19) advice for the public: Myth busters

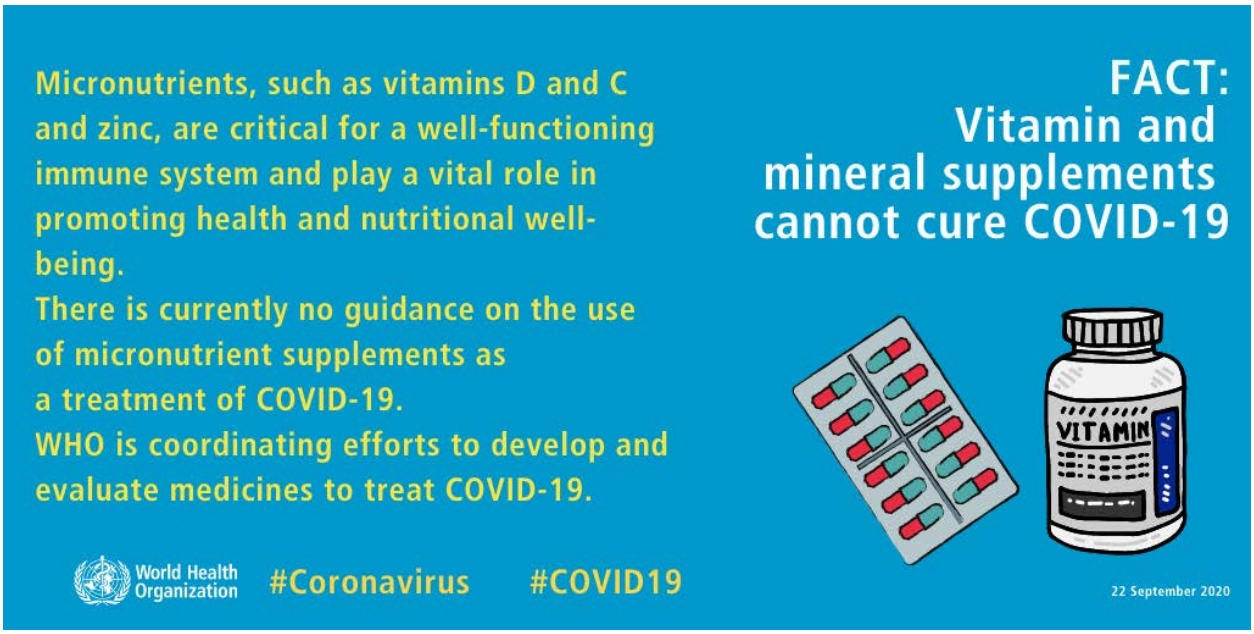
Accessed and updated 10/17/2020: https://www.who.int/emergencies/diseases/novel-coronavirus-2019/advice-for-public/myth-busters

Misinformation and disinformation about COVID-19 can spread far and fast through the Internet. To fight these myths and lies, WHO created a series called "Myth busters" based on the latest clinical and research information about COVID-19.

FACT: Vitamin and mineral supplements cannot cure COVID-19

Micronutrients, such as vitamins D and C and zinc, are critical for a well-functioning immune system and play a vital role in promoting health and nutritional well-being. There is currently no guidance on the use of micronutrient supplements as a treatment of COVID-19.

WHO is coordinating efforts to develop and evaluate medicines to treat COVID-19.

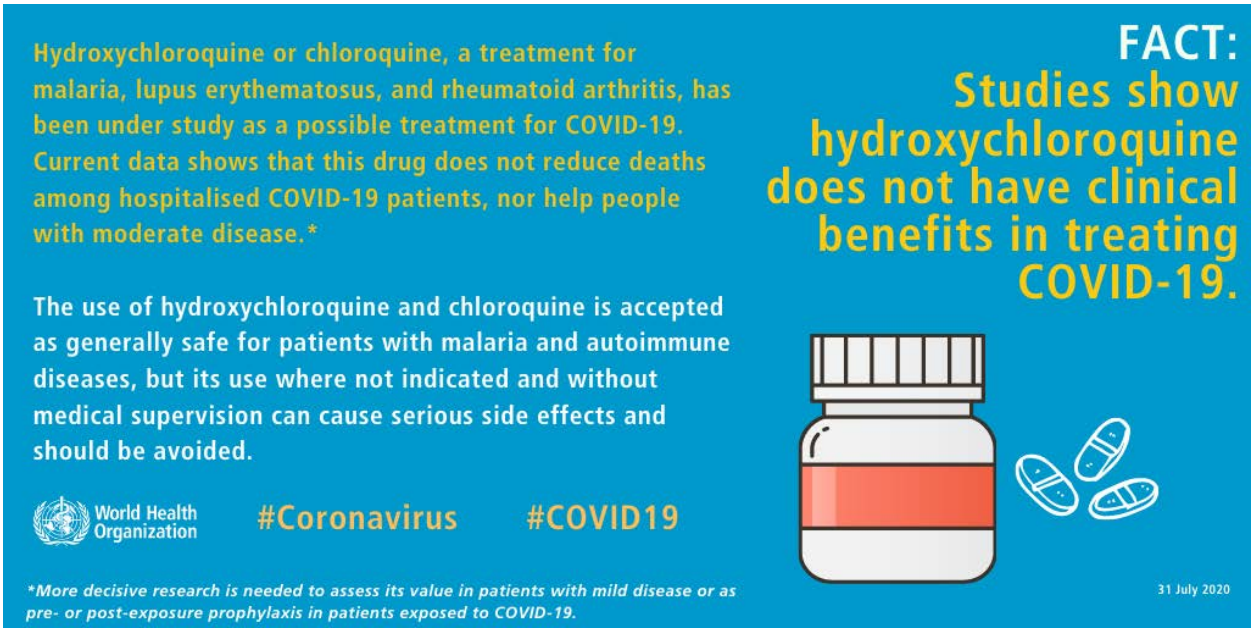


FACT: Studies show hydroxychloroquine does not have clinical benefits in treating COVID-19

Hydroxychloroquine or chloroquine, a treatment for malaria, lupus erythematosus, and rheumatoid arthritis, has been under study as a possible treatment for COVID-19. Current data shows that this drug does not reduce deaths among hospitalized COVID-19 patients, nor help people with moderate disease. *

The use of hydroxychloroquine and chloroquine is accepted as generally safe for patients with malaria and autoimmune diseases, but its use where not indicated and without medical supervision can cause serious side effects and should be avoided.

* More decisive research is needed to assess its value in patients with mild disease or as pre- or post-exposure prophylaxis in patients exposed to COVID-19.



FACT: People should NOT wear masks while exercising

People should NOT wear masks when exercising, as masks may reduce the ability to breathe comfortably.

Sweat can make the mask become wet more quickly which makes it difficult to breathe and promotes the growth of microorganisms. The important preventive measure during exercise is to maintain physical distance of at least one meter from others.

FACT: The likelihood of shoes spreading COVID-19 is very low

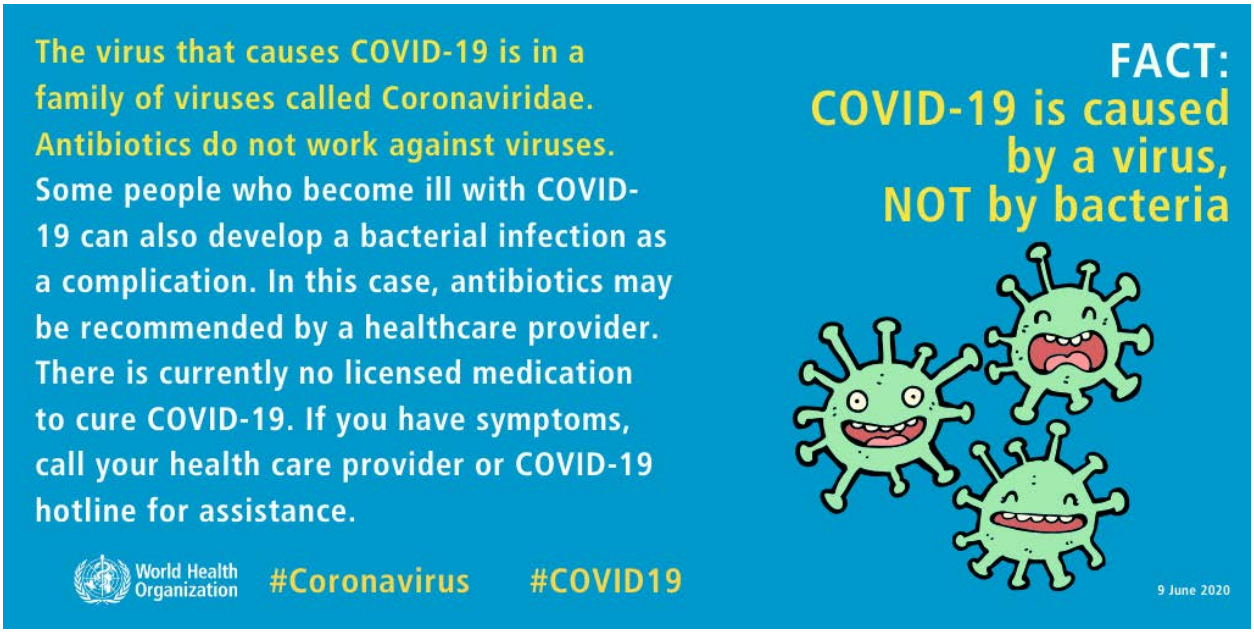
The likelihood of COVID-19 being spread on shoes and infecting individuals is very low. As a precautionary measure, particularly in homes where infants and small children crawl or play on floors, consider leaving your shoes at the entrance of your home. This will help prevent contact with dirt or any waste that could be carried on the soles of shoes.

FACT: The coronavirus disease (COVID-19) is caused by a virus, NOT by bacteria

The virus that causes COVID-19 is in a family of viruses called Coronaviridae. Antibiotics do not work against viruses.

Some people who become ill with COVID-19 can also develop a bacterial infection as a complication. In this case, antibiotics may be recommended by a healthcare provider.

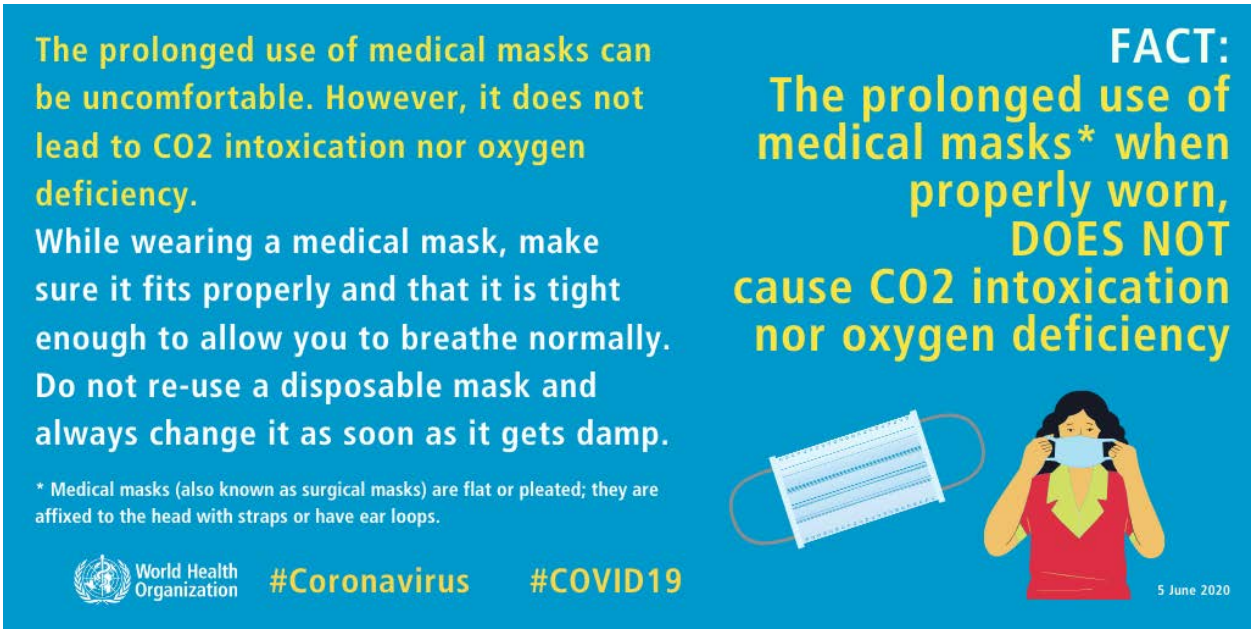
There is currently no licensed medication to cure COVID-19. If you have symptoms, call your healthcare provider or COVID-19 hotline for assistance.



FACT: The prolonged use of medical masks* when properly worn, DOES NOT cause CO2 intoxication nor oxygen deficiency

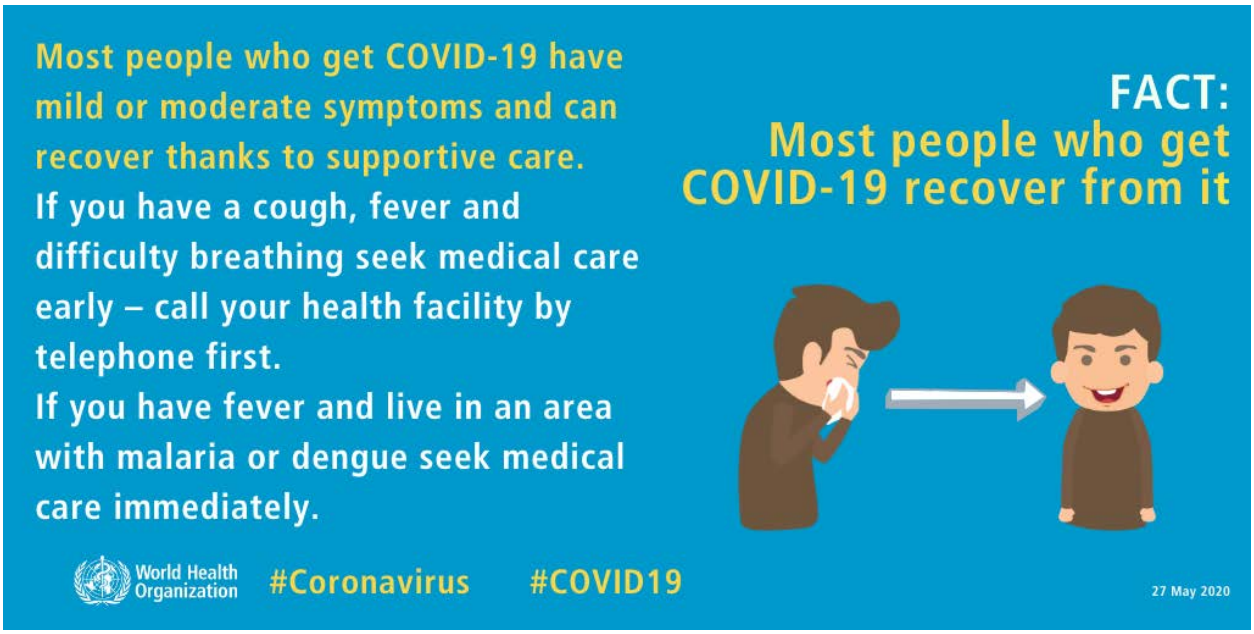
The prolonged use of medical masks can be uncomfortable. However, it does not lead to CO2 intoxication nor oxygen deficiency. While wearing a medical mask, make sure it fits properly and that it is tight enough to allow you to breathe normally. Do not re-use a disposable mask and always change it as soon as it gets damp.

* Medical masks (also known as surgical masks) are flat or pleated; they are affixed to the head with straps or have ear loops.



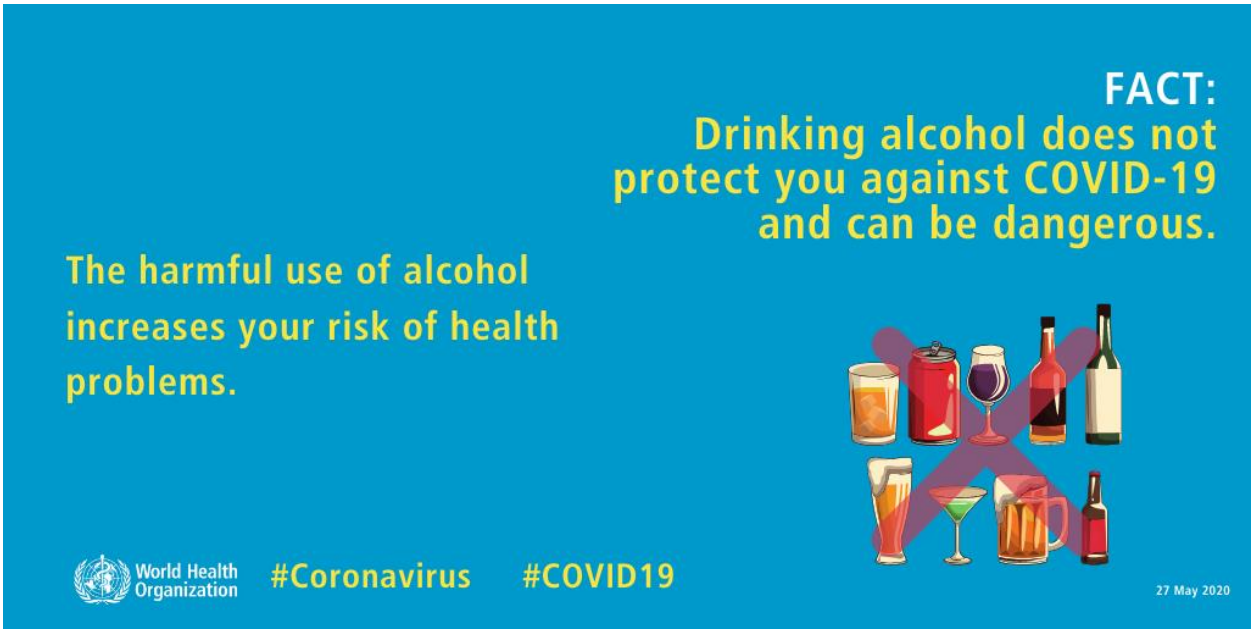
FACT: Most people who get COVID-19 recover from it

Most people who get COVID-19 have mild or moderate symptoms and can recover thanks to supportive care. If you have a cough, fever and difficulty breathing seek medical care early - call your health facility by telephone first. If you have fever and live in an area with malaria or dengue seek medical care immediately.



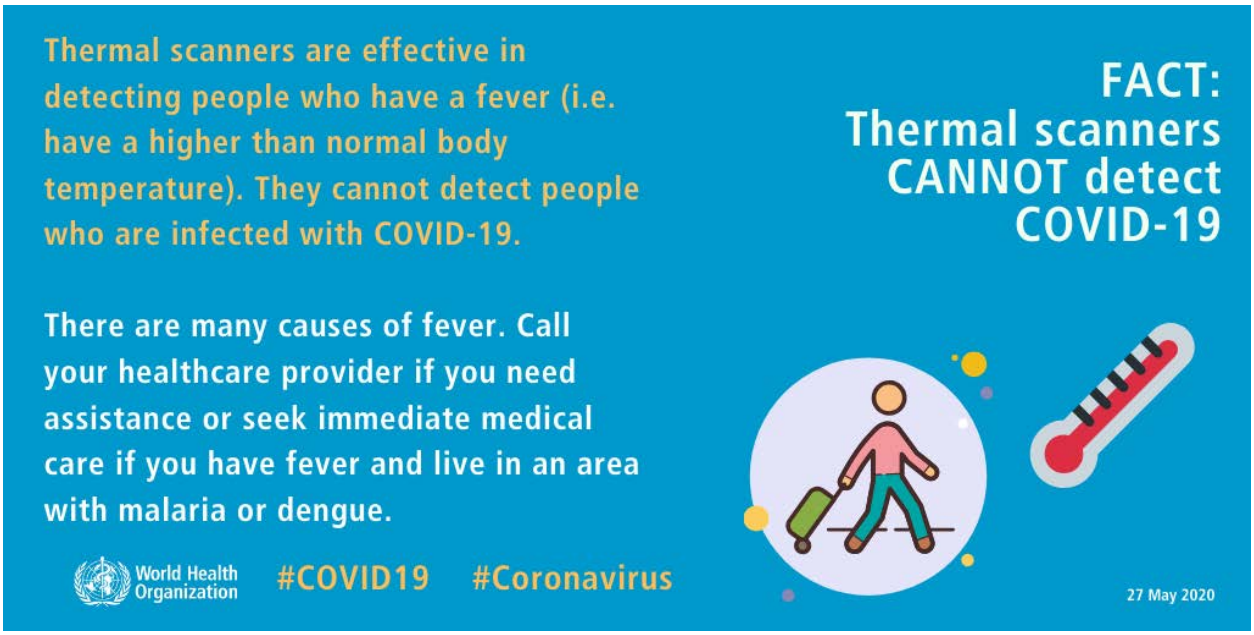
FACT: Drinking alcohol does not protect you against COVID-19 and can be dangerous

The harmful use of alcohol increases your risk of health problems.



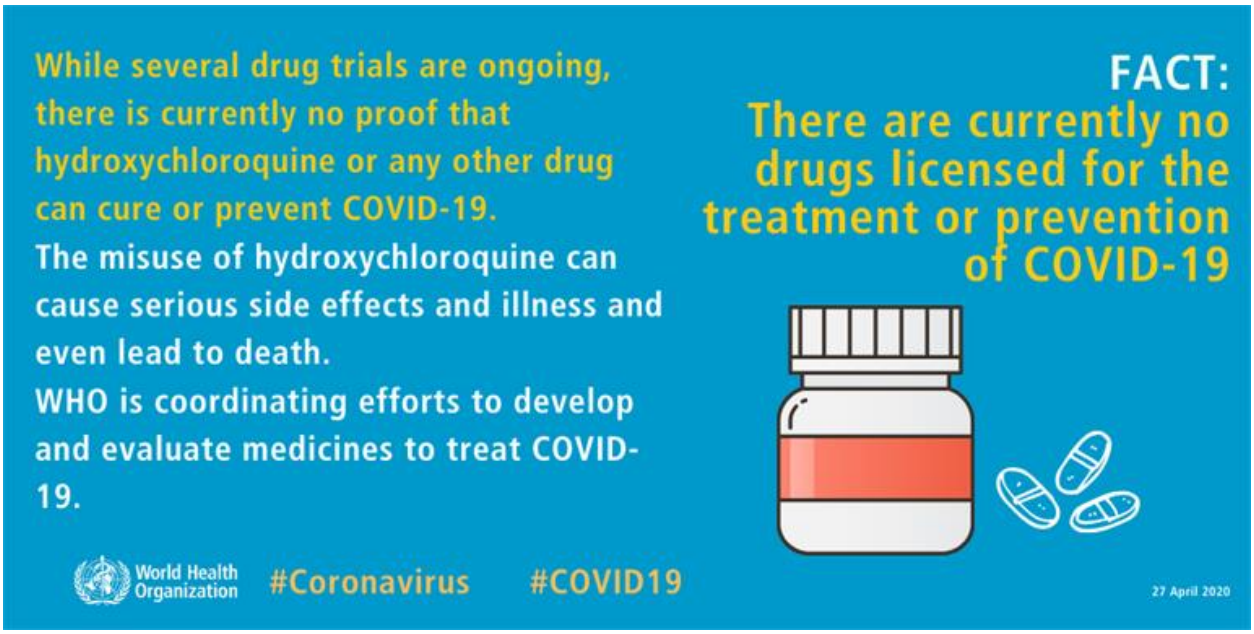
FACT: Thermal scanners CANNOT detect COVID-19

Thermal scanners are effective in detecting people who have a fever (i.e. have a higher than normal body temperature). They cannot detect people who are infected with COVID-19. There are many causes of fever. Call your healthcare provider if you need assistance or seek immediate medical care if you have fever and live in an area with malaria or dengue.



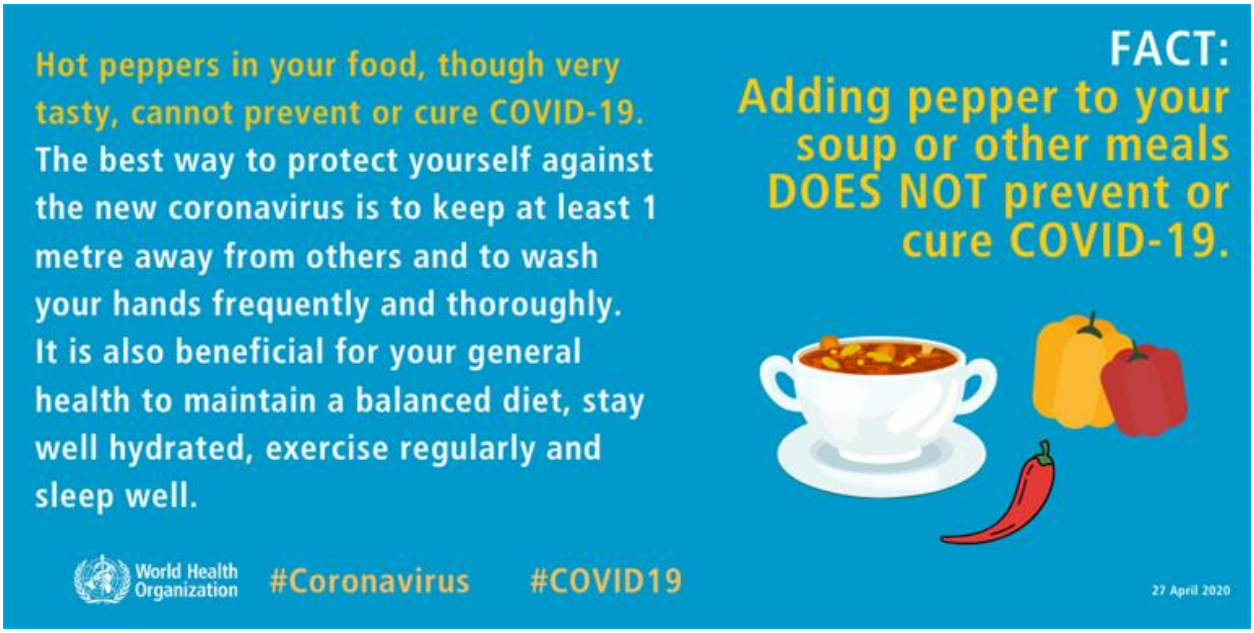
FACT: There are currently no drugs licensed for the treatment or prevention of COVID-19

While several drug trials are ongoing, there is currently no proof that hydroxychloroquine or any other drug can cure or prevent COVID-19. The misuse of hydroxychloroquine can cause serious side effects and illness and even lead to death. WHO is coordinating efforts to develop and evaluate medicines to treat COVID-19.



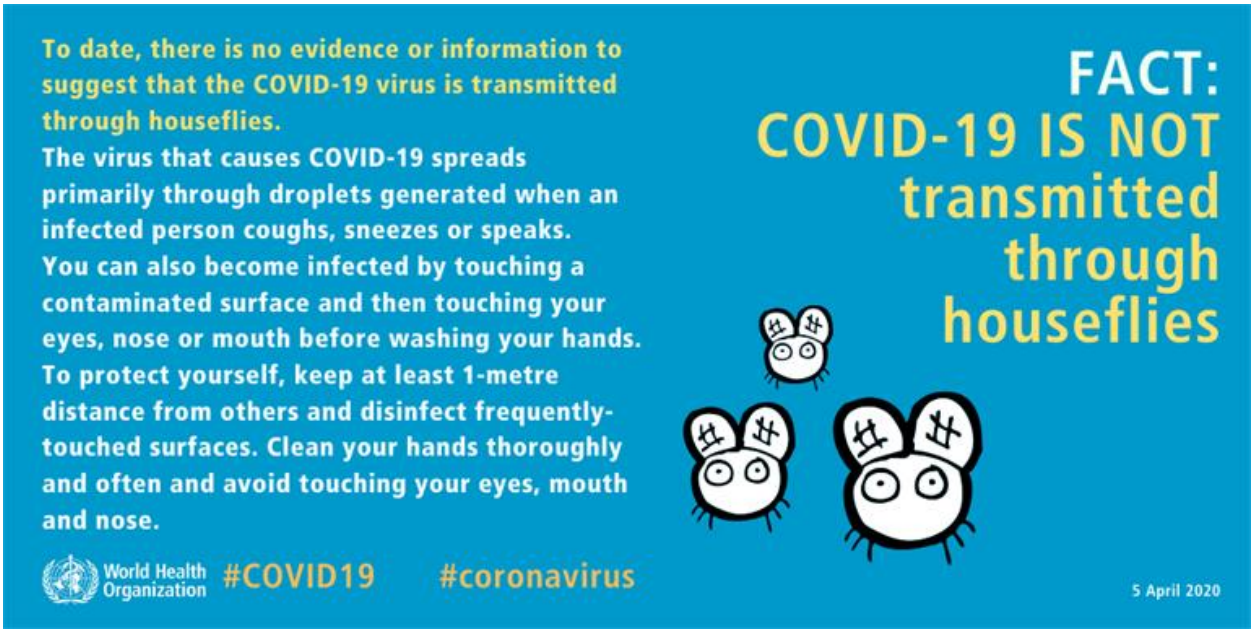
FACT: Adding pepper to your soup or other meals DOES NOT prevent or cure COVID-19

Hot peppers in your food, though very tasty, cannot prevent or cure COVID-19. The best way to protect yourself against the new coronavirus is to keep at least 1 metre away from others and to wash your hands frequently and thoroughly. It is also beneficial for your general health to maintain a balanced diet, stay well hydrated, exercise regularly and sleep well.



FACT: COVID-19 is NOT transmitted through houseflies

To date, there is no evidence or information to suggest that the COVID-19 virus transmitted through houseflies. The virus that causes COVID-19 spreads primarily through droplets generated when an infected person coughs, sneezes or speaks. You can also become infected by touching a contaminated surface and then touching your eyes, nose or mouth before washing your hands. To protect yourself, keep at least 1-metre distance from others and disinfect frequently-touched surfaces. Clean your hands thoroughly and often and avoid touching your eyes, mouth and nose.



FACT: Spraying and introducing bleach or another disinfectant into your body WILL NOT protect you against COVID-19 and can be dangerous

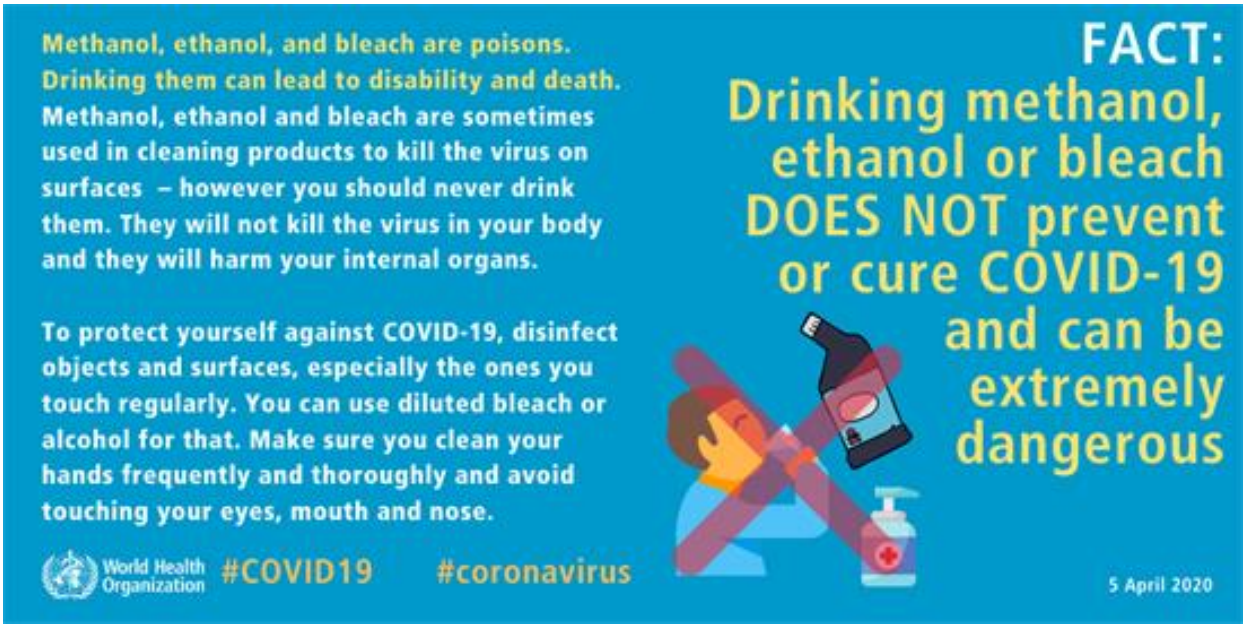
Do not under any circumstance spray or introduce bleach or any other disinfectant into your body. These substances can be poisonous if ingested and cause irritation and damage to your skin and eyes.

Bleach and disinfectant should be used carefully to disinfect surfaces only. Remember to keep chlorine (bleach) and other disinfectants out of reach of children.

FACT: Drinking methanol, ethanol or bleach DOES NOT prevent or cure COVID-19 and can be extremely dangerous

Methanol, ethanol, and bleach are poisons. Drinking them can lead to disability and death. Methanol, ethanol, and bleach are sometimes used in cleaning products to kill the virus on surfaces – however you should never drink them. They will not kill the virus in your body and they will harm your internal organs.

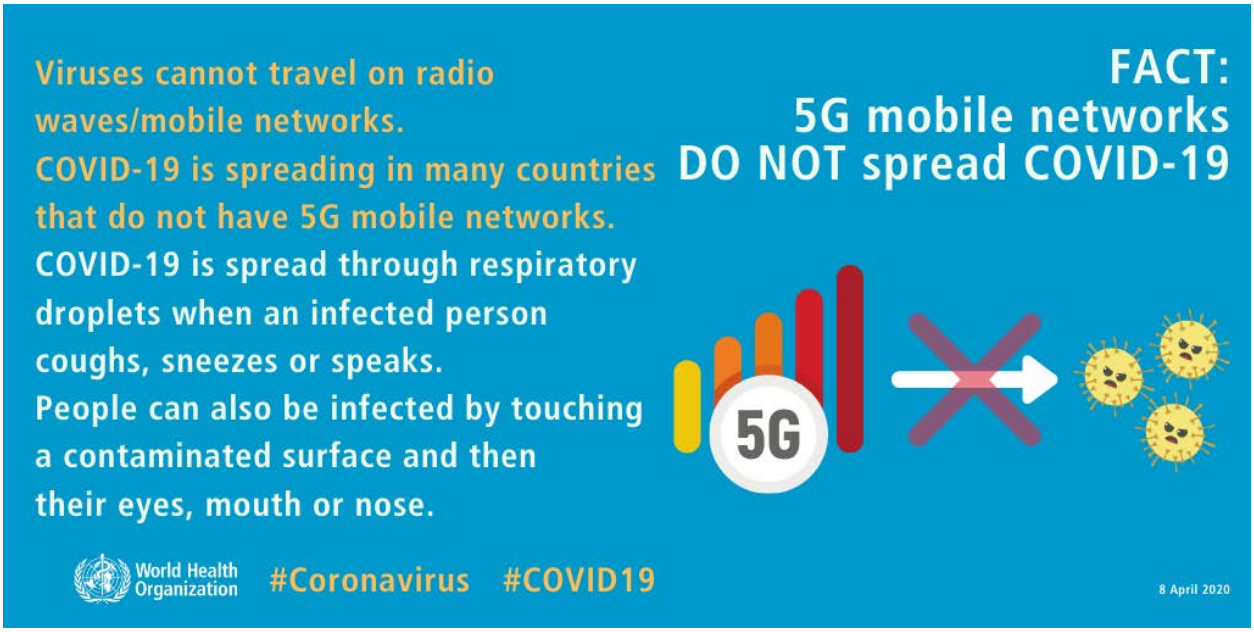
To protect yourself against COVID-19, disinfect objects and surfaces, especially the ones you touch regularly. You can use diluted bleach or alcohol for that. Make sure you clean your hands frequently and thoroughly and avoid touching your eyes, mouth and nose.



FACT: 5G mobile networks DO NOT spread COVID-19

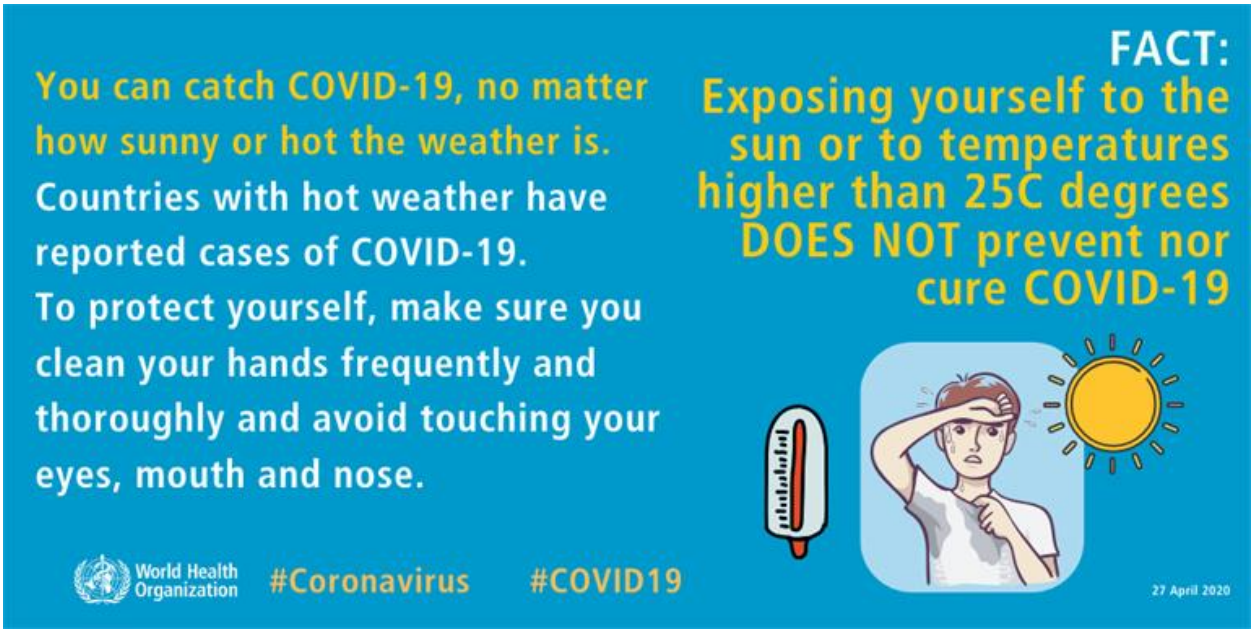
Viruses cannot travel on radio waves/mobile networks. COVID-19 is spreading in many countries that do not have 5G mobile networks.

COVID-19 is spread through respiratory droplets when an infected person coughs, sneezes or speaks. People can also be infected by touching a contaminated surface and then their eyes, mouth or nose.



FACT: Exposing yourself to the sun or to temperatures higher than 25°C DOES NOT protect you from COVID-19

You can catch COVID-19, no matter how sunny or hot the weather is. Countries with hot weather have reported cases of COVID-19. To protect yourself, make sure you clean your hands frequently and thoroughly and avoid touching your eyes, mouth, and nose.



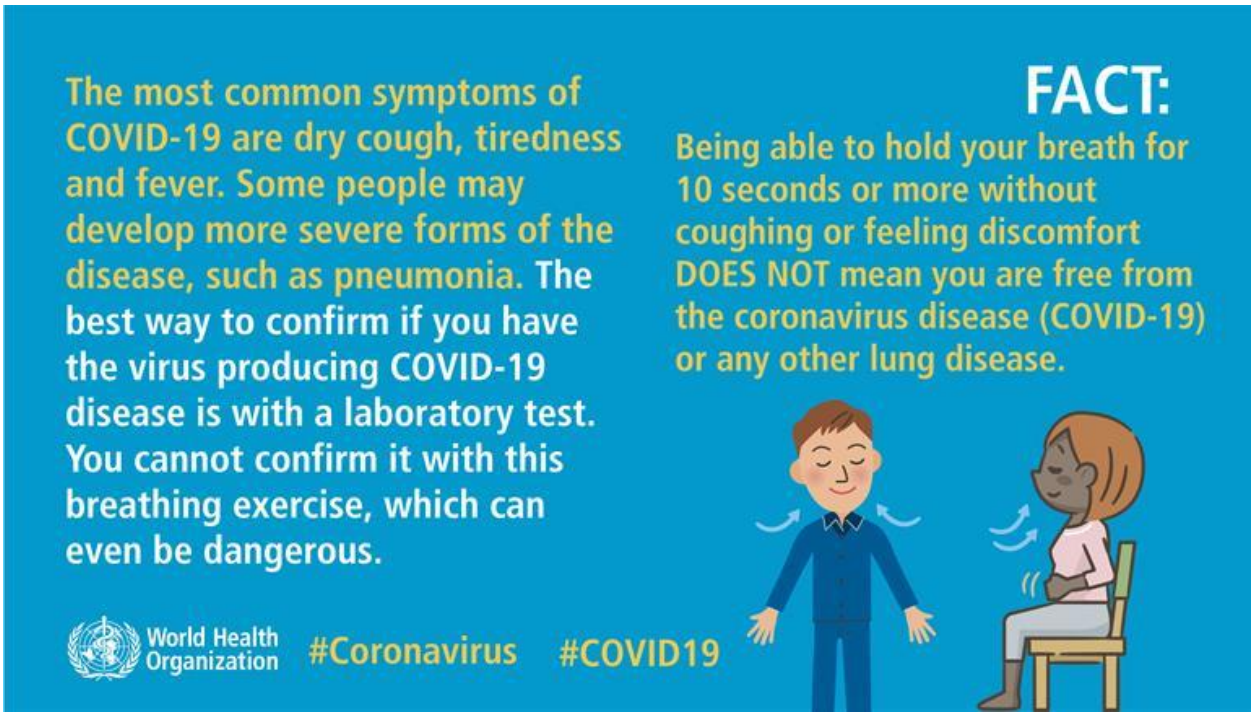
FACT: Catching COVID-19 DOES NOT mean you will have it for life

Most of the people who catch COVID-19 can recover and eliminate the virus from their bodies. If you catch the disease, make sure you treat your symptoms. If you have cough, fever, and difficulty breathing, seek medical care early – but call your health facility by telephone first. Most patients recover thanks to supportive care.

(No graphic included)

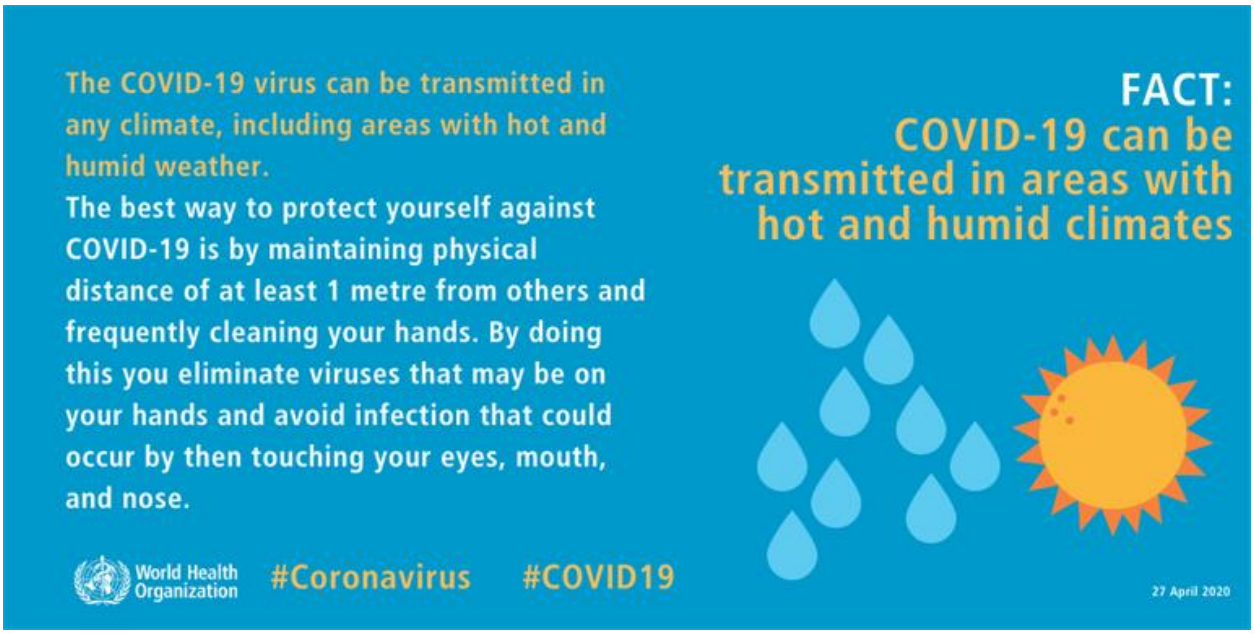
FACT: Being able to hold your breath for 10 seconds or more without coughing or feeling discomfort DOES NOT mean you are free from COVID-19

The most common symptoms of COVID-19 are dry cough, tiredness and fever. Some people may develop more severe forms of the disease, such as pneumonia. The best way to confirm if you have the virus producing COVID-19 disease is with a laboratory test. You cannot confirm it with this breathing exercise, which can even be dangerous.



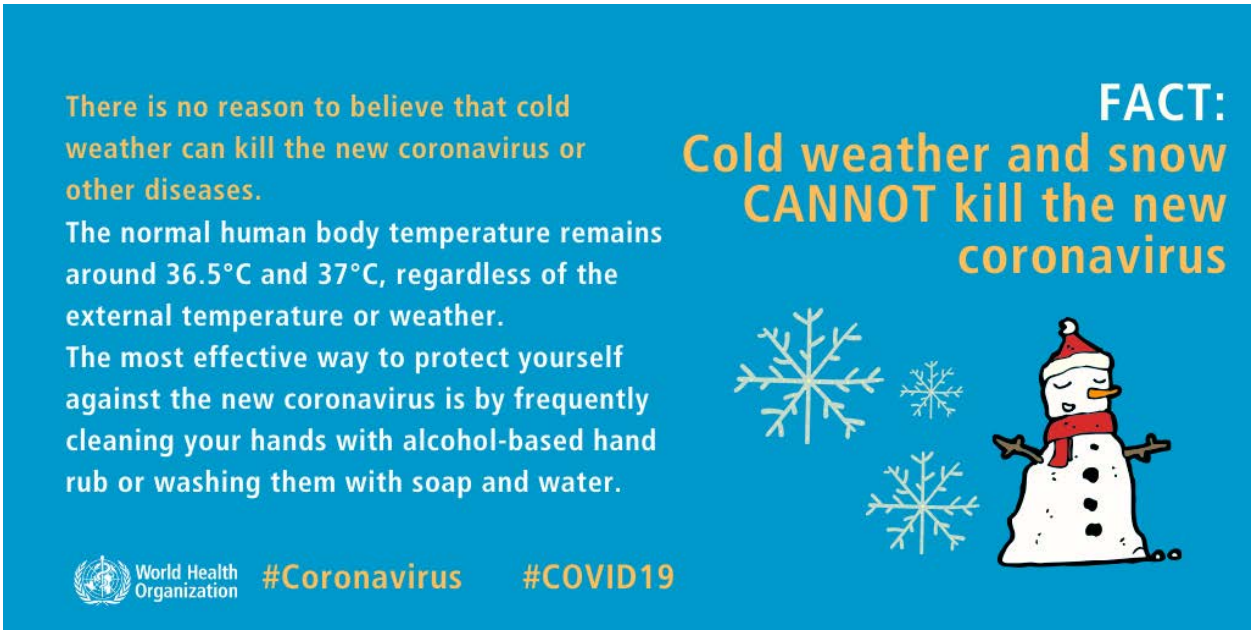
FACT: The COVID-19 virus can spread in hot and humid climates

The best way to protect yourself against COVID-19 is by maintaining physical distance of at least 1 metre from others and frequently cleaning your hands. By doing this you eliminate viruses that may be on your hands and avoid infection that could occur by then touching your eyes, mouth, and nose.



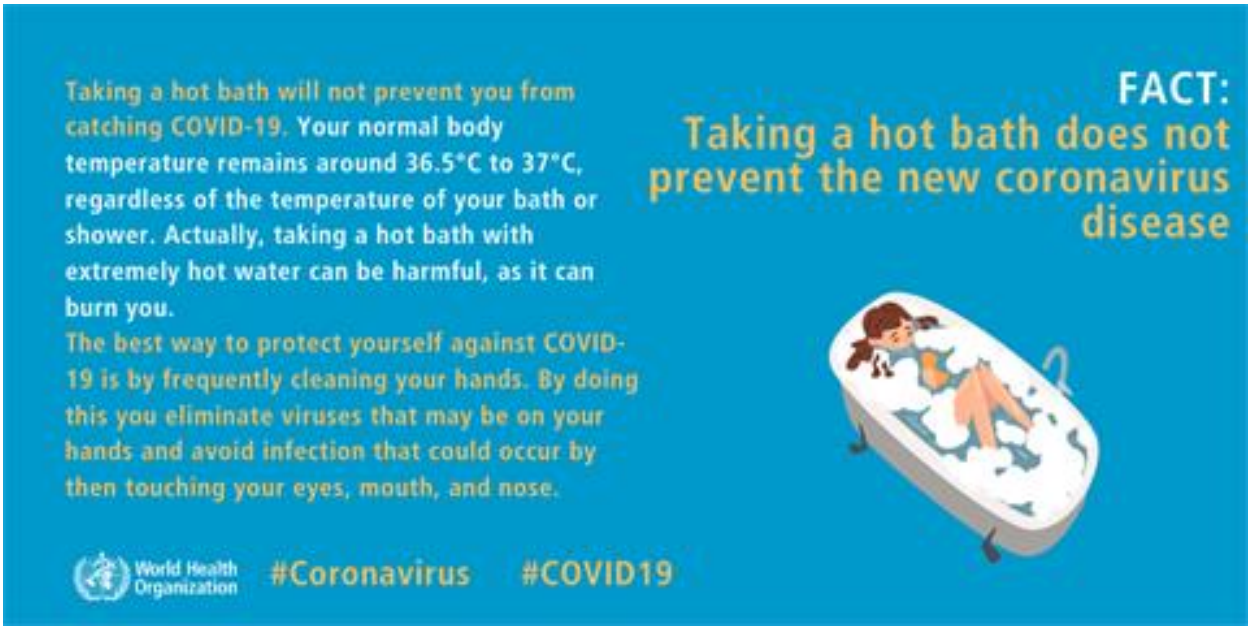
FACT: Cold weather and snow CANNOT kill the COVID-19 virus

There is no reason to believe that cold weather can kill the new coronavirus or other diseases. The normal human body temperature remains around 36.5°C to 37°C, regardless of the external temperature or weather. The most effective way to protect yourself against the new coronavirus is by frequently cleaning your hands with alcohol-based hand rub or washing them with soap and water.



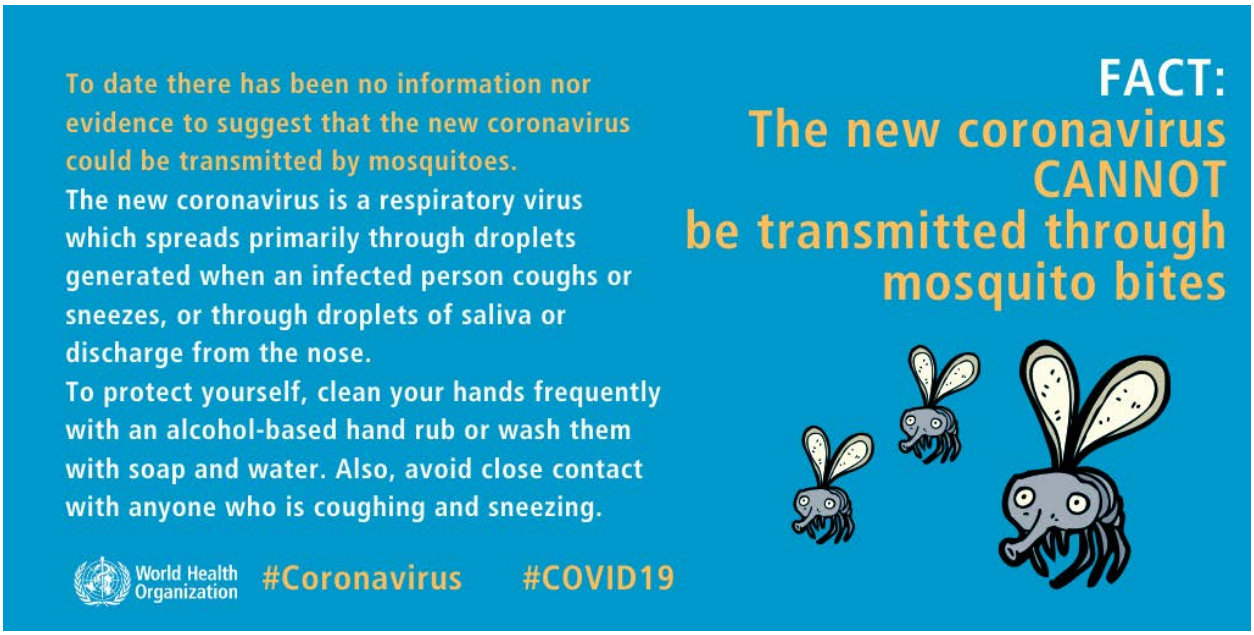
FACT: Taking a hot bath does not prevent COVID-19

Taking a hot bath will not prevent you from catching COVID-19. Your normal body temperature remains around 36.5°C to 37°C, regardless of the temperature of your bath or shower. Actually, taking a hot bath with extremely hot water can be harmful, as it can burn you. The best way to protect yourself against COVID-19 is by frequently cleaning your hands. By doing this you eliminate viruses that may be on your hands and avoid infection that could occur by then touching your eyes, mouth, and nose.



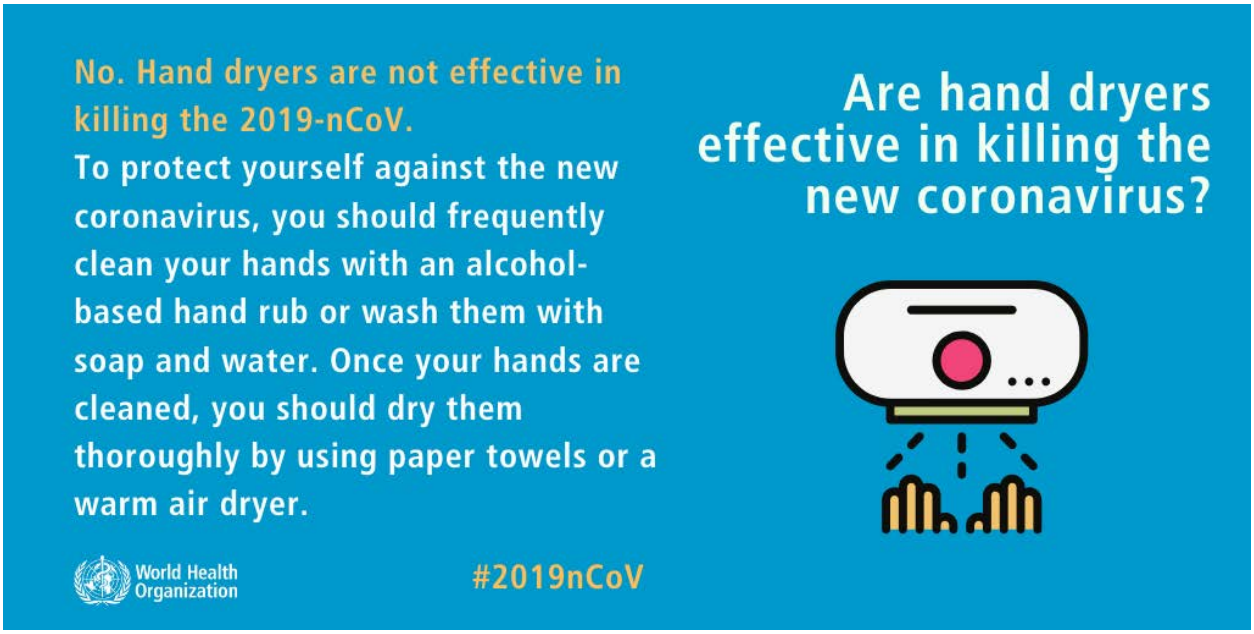
FACT: The COVID-19 virus CANNOT be spread through mosquito bites

To date there has been no information nor evidence to suggest that the new coronavirus could be transmitted by mosquitoes. The new coronavirus is a respiratory virus which spreads primarily through droplets generated when an infected person coughs or sneezes, or through droplets of saliva or discharge from the nose. To protect yourself, clean your hands frequently with an alcohol-based hand rub or wash them with soap and water. Also, avoid close contact with anyone who is coughing and sneezing.



FACT: Hand dryers are NOT effective in killing the new COVID-19 virus

Hand dryers are not effective in killing the COVID-19 virus. To protect yourself, frequently clean your hands with an alcohol-based hand rub or wash them with soap and water. Once your hands are cleaned, you should dry them thoroughly by using paper towels or a warm air dryer.



FACT: Ultra-violet (UV) lamps should NOT be used to disinfect hands or other areas of your skin

UV radiation can cause skin irritation and damage your eyes.

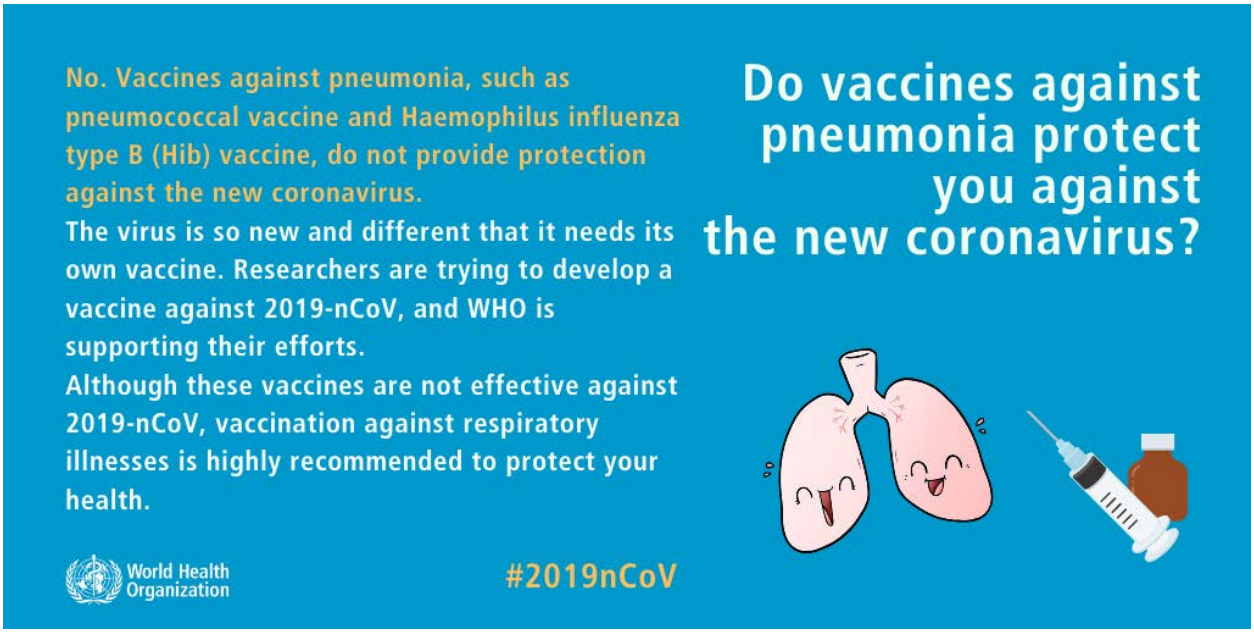
Cleaning your hands with alcohol-based hand rub or washing your hands with soap and water are the most effective ways to remove the virus.

FACT: Vaccines against pneumonia DO NOT protect against the COVID-19 virus

Vaccines against pneumonia, such as pneumococcal vaccine and Haemophilus influenza type B (Hib) vaccine, do not provide protection against the new coronavirus.

The virus is so new and different that it needs its own vaccine. Researchers are trying to develop a vaccine against COVID-19, and WHO is supporting their efforts.

Although these vaccines are not effective against COVID-19, vaccination against respiratory illnesses is highly recommended to protect your health.



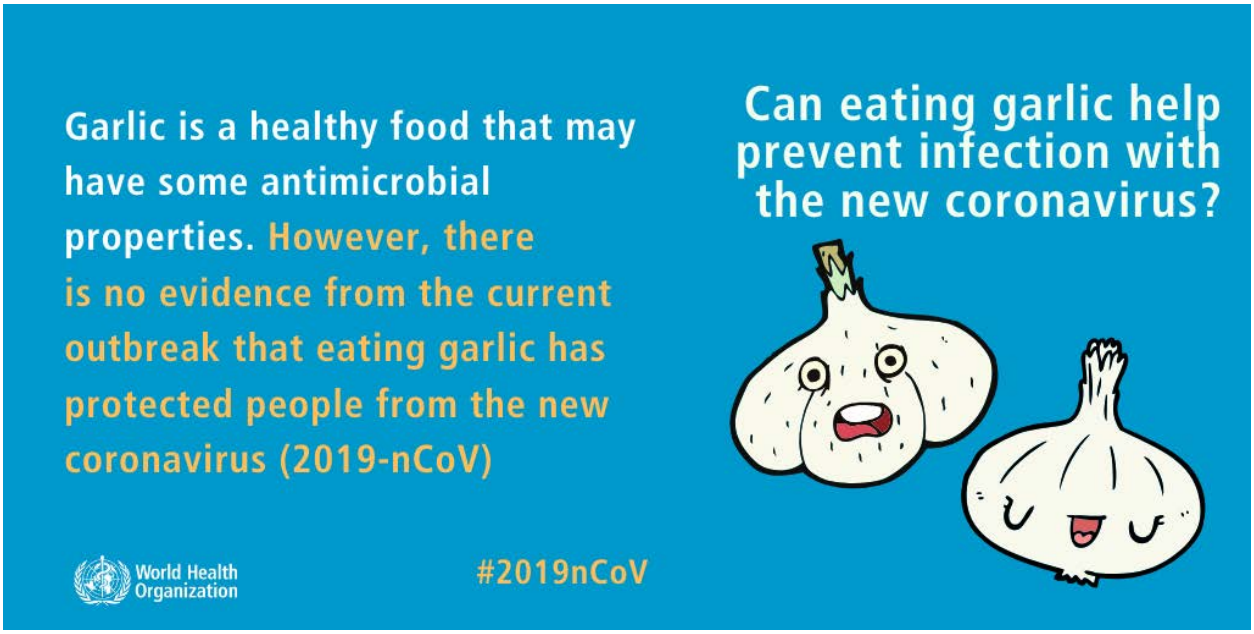
FACT: Rinsing your nose with saline does NOT prevent COVID-19

There is no evidence that regularly rinsing the nose with saline has protected people from infection with the new coronavirus.

There is some limited evidence that regularly rinsing the nose with saline can help people recover more quickly from the common cold. However, regularly rinsing the nose has not been shown to prevent respiratory infections.

FACT: Eating garlic does NOT prevent COVID-19

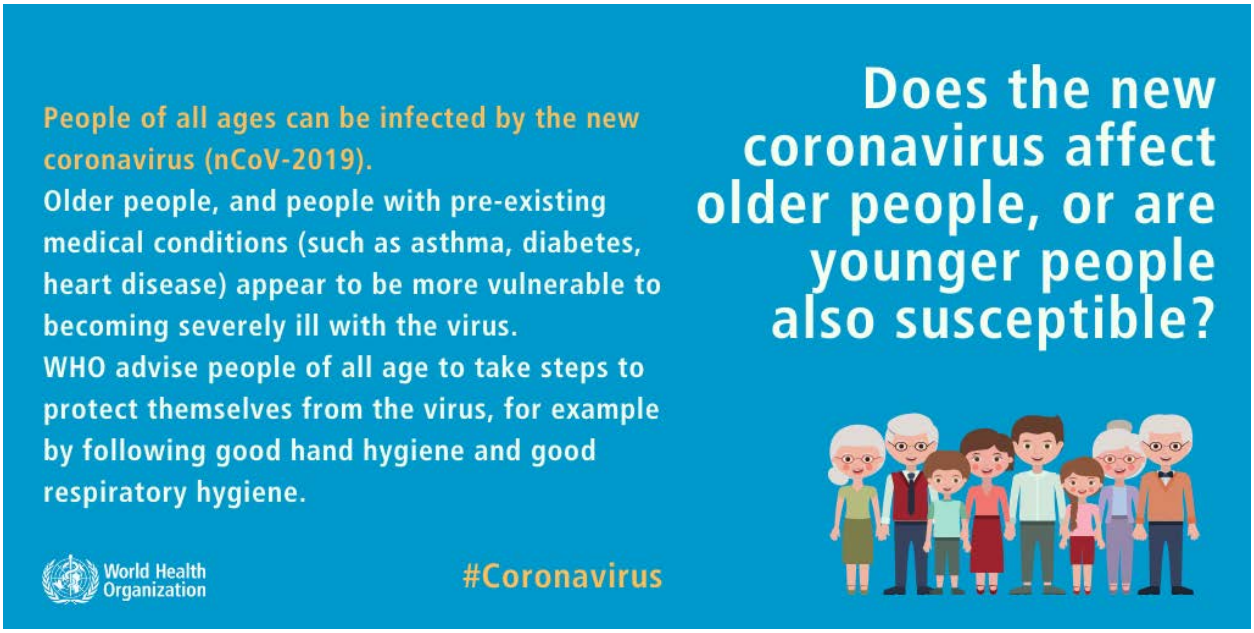
Garlic is a healthy food that may have some antimicrobial properties. However, there is no evidence from the current outbreak that eating garlic has protected people from the new coronavirus.



FACT: People of all ages can be infected by the COVID-19 virus

Older people and younger people can be infected by the COVID-19 virus. Older people, and people with pre-existing medical conditions such as asthma, diabetes, and heart disease appear to be more vulnerable to becoming severely ill with the virus.

WHO advises people of all ages to take steps to protect themselves from the virus, for example by following good hand hygiene and good respiratory hygiene.

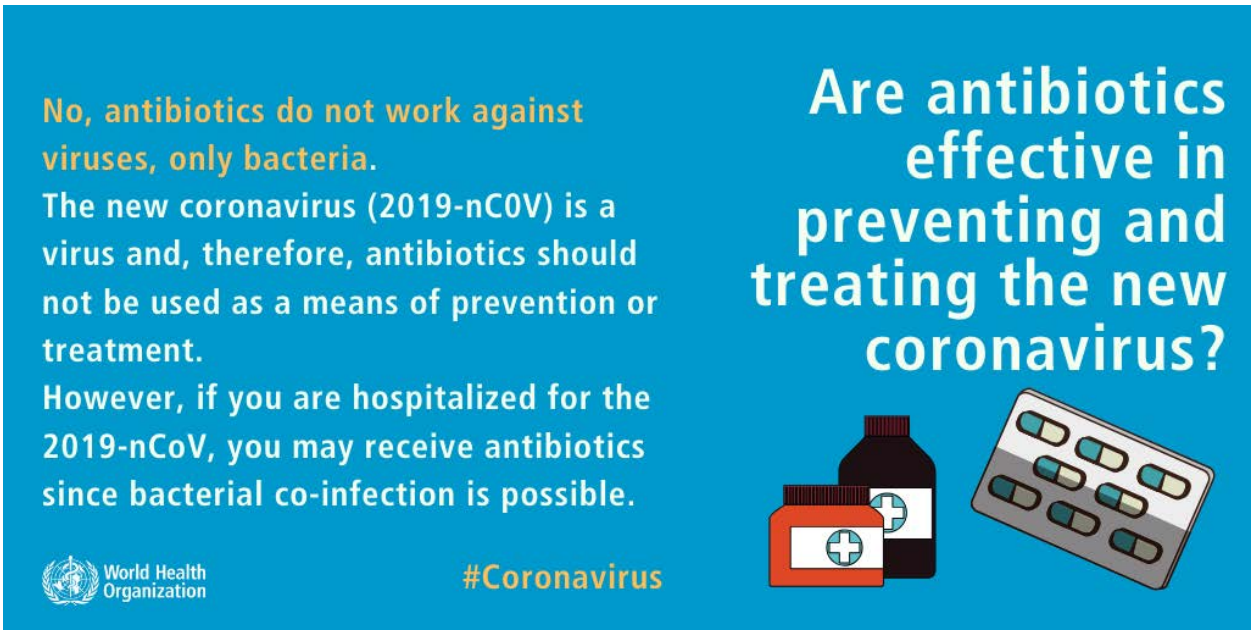


FACT: Antibiotics CANNOT prevent or treat COVID-19

Antibiotics work only against bacteria, not viruses.

COVID-19 is caused by a virus, and therefore antibiotics should not be used for prevention or treatment.

However, if you are hospitalized for COVID-19, you may receive antibiotics because bacterial co-infection is possible.



FACT: There are no medicines that can prevent or treat COVID-19

To date, there is no specific medicine recommended to prevent or treat the new coronavirus.

However, those infected with the virus should receive appropriate care to relieve and treat symptoms, and those with severe illness should receive optimized supportive care. Some specific treatments are under investigation, and will be tested through clinical trials. WHO is helping to accelerate research and development efforts with a range of partners.