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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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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 people wearing face coverings in public are slowing 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.
   - Health care systems are strengthening protection for healthcare workers; expanding COVID-19 treatment; expanding testing; and implementing best practices in risk communication.
   - Public health measures can be relaxed in a phased approach based on confirmed cases.
2. ***Social distancing, diagnostic testing, and people wearing face coverings in public are slowing the spread of COVID-19.***[5]
   - People should follow social distancing guidelines to help "flatten the curve" and help slow the spread of COVID-19.
   - Experts are calling for widespread COVID-19 testing to facilitate identification, isolation, treatment, and contact tracing.
     - Testing availability remains insufficient and results are limited by false negatives and inability to detect low virus levels.
   - 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]
   - Everyone should follow the orders of federal, state, territorial, and local officials to stay home if possible, maintain at least 6 feet of space from others, and avoid gatherings.
     - 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 may cause COVID-19 but it is not clear whether they carry sufficient virus.
     - People should wash their hands often; avoid touching their faces; and cover coughs/sneezes.
   - People should wear face coverings and practice physical 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, and loss of taste or smell.
   - Most people who test positive for COVID-19 commonly have 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 for 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 days and COVID-19 symptoms often start as mild and gradually get worse over a few days.
3. ***The disease is often much more severe in 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 new data, and appear to range from less than 1% to 12% or greater.
   - COVID-19 illness is more severe for people over 60 years old and those with an underlying health condition like diabetes, asthma, or heart disease.
   - COVID-19 illness may be more severe in places where health resources are limited or overburdened by the outbreak.

[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 greatest risk for severe illness.*
2. *Youth appears to offer some protection from severe COVID-19 illness.*
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 greatest risk for severe illness.***[10 11 12]
   - Age has been shown to be an independent risk factor for severe disease and death from COVID-19.
     - 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 underlying medical conditions.
   - Nearly 40% of all US 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. ***Youth appears to offer some protection from severe COVID-19 illness.***[9 10 13]
   - 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.
   - Children age 10 and under currently account for just 1% of all COVID-19 cases.
   - Most of the children infected appear to have milder symptoms compared to adults.
   - CDC has reported that 20% of hospitalized patients in the U.S. are between 20 - 44 years old.
3. ***Researchers have discovered in some children with COVID-19 a severe illness called Multisystem Inflammatory Syndrome in Children (MIS-C).***[14]
   - 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 100+ children have been diagnosed with several deaths.
   - According to CDC regarding MIS-C, there currently no guidelines, no recommendations, nor studies comparing treatment options.
   - 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.

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

[11] https://www.statista.com/statistics/1106372/coronavirus-death-rate-by-age-group-italy/

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

103. What about pregnant women and COVID-19?

Key Messages/Shorter Answer (Soundbite):

1. *Experts believe pregnancy does not increase risk for acquiring COVID-19 or developing severe symptoms.*
2. *Given that this is a novel virus, little is known 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. ***Experts believe pregnancy does not increase risk for acquiring COVID-19 or developing severe symptoms.***[15] [16]
   - Symptoms of COVID-19 in pregnant women appear to be similar to non-pregnant women.
   - Initial pregnancy findings are based on a small number of cases, over a short period of time, and only included women late in their pregnancy and who gave birth by caesarean section.
   - Research is underway regarding COVID-19 effects on pregnant women and newborn babies.
2. ***Given that this is a novel virus, little is known about its impact on pregnant women.***[17]
   - 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 yet to be observed with COVID-19.
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.***[18] [19] [20] [21]
   - Current information suggests symptoms are likely to be mild to moderate, as is true for women (and men) in this age range who are not pregnant.
   - Pregnant women who believe they have been exposed to COVID-19 should inform their doctor.
   - Although there are currently little data showing that COVID-19 affects pregnant people differently, scientists believe that pregnant people are at greater risk of getting sick from other respiratory viruses.

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

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

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

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

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

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

[21] 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.***[22] [23]
   - 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 normally exist in animals but can be transmitted to humans.
   - The United States Department of Agriculture identified one tiger at 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.
2. ***There are only a few isolated and confirmed cases of pets carrying COVID-19 in the U.S.***[24]
   - The Department of Agriculture confirmed cases of COVID-19 in two pet cats in New York.[25]
     - 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.
   - There are very limited reports of dogs testing positive for the virus that causes 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.***[26]
   - People should always wash their hands with soap and water after contact with animals.
   - Washing one's hands protects one 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.

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

[23] https://www.aphis.usda.gov/aphis/newsroom/news/sa_by_date/sa-2020/ny-zoo-covid-19

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

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

[26] 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 illness has 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.***[27] [28]
   - The main symptoms of COVID-19 include fever, dry cough, fatigue, and shortness of breath.
     - COVID-19 symptoms may include chills, repeated shaking with chills, muscle pain, headache, sore throat, 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.
   - The sheer number of people with, or suspected to have, COVID-19 has already overwhelmed several healthcare facilities and systems.
2. ***Most coronavirus infections cause very similar types of respiratory illness at the onset.***[29]
   - In some mild cases, COVID-19 causes runny nose, dry cough, fatigue, sore throat, and fever.
   - COVID-19 symptoms may include chills, repeated shaking with chills, muscle pain, headache, sore throat, 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 disease caused by COVID-19.
3. ***Confirmed COVID-19 illness has ranged from mild symptoms to severe illness and death.***[30]
   - 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 new data, and appear to range from less than 1% to 12% or greater.
   - Even if someone has mild symptoms of a cold or influenza and if they are concerned about having contact with COVID-19, they should contact a local health care provider.

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

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

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

[30] 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 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 wide variation in fatality rates.***[31 32 33 34]
   - Fatality rates appear to vary from as high as 12% in Italy, less than 3% in the USA, and to less than 1% in Iceland.[35]
   - Most COVID-19 deaths are among the elderly.
     - 80% of deaths occurred amongst those aged 60 years or older and the highest percentage of severe outcomes were among persons aged 85 years or older.
     - In Italy, one of the most affected European countries, nearly 90% of deaths are in those aged 60 years or older.
   - Estimated fatality rates vary based on many factors including testing, confirmed cases, age, gender, country, availability of healthcare resources, reporting systems, socio-economic factors, severity of patients' illness, and medical treatment.
     - Testing availability remains insufficient and results are limited by false negatives and inability to detect low virus levels.
   - Fatality rates can change as hospitals become overwhelmed with cases.
2. ***Older people and those with underlying medical conditions are more likely to die from COVID-19.***[31 32 33 34 35]
   - Higher COVID-19 cases and deaths among the elderly appears to be linked to presence of other health problems, a weaker immune or respiratory system, and poor overall health.
   - People with diabetes, chronic lung disease, 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 US COVID-19 patients have an underlying health condition.
   - Many people having underlying health conditions require Intensive Care Unit admission.
3. ***Most people with COVID-19 have mild symptoms and survive***.[31 34 36]
   - 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.

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

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

[33] https://www.statista.com/statistics/1106372/coronavirus-death-rate-by-age-group-italy/

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

[35] https://who.sprinklr.com

[36] 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.***[37] [38]
   - 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.
   - For most people, COVID-19 symptoms usually peak within the first two to three days of infection, while the more serious consequences of COVID-19 usually appear two to 14 days after exposure.
   - COVID-19 is a new disease and is neither SARS (Severe Acute Respiratory Syndrome) nor MERS (Middle Eastern Respiratory Syndrome).
2. ***COVID-19 can be more dangerous than the common cold.***[39] [40]
   - Most people with COVID-19 and the common cold have mild illness 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.***[38] [39] [41]
   - Federal, state, territorial, and local authorities have implemented physical and social distancing rules and recommendations to slow COVID-19.
     - Social distancing guidelines are intended to "flatten the curve," i.e., slow the spread of COVID-19.
   - Federal, state, territorial, and local officials have issued travel recommendations.
   - People are being strongly encouraged to follow strict hygiene measures to help prevent COVID-19 infection and spread.
   - People should avoid dangerous myths and rumors.

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

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

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

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

[41] 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.***[42 43 44]
   - 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 percent of people infected with the virus appear to show no symptoms in the days following infection.
     - New research suggests just breathing or talking may be enough to spread COVID-19.
   - The coronavirus that causes COVID-19 may spread through the air in tiny particles that people who are infected exhale during normal breathing and talking.
   - The virus can be spread through droplets that are created when a person coughs or sneezes, or through droplets of saliva or discharge from the nose.
   - People infected with COVID-19 appear to be most infectious when they are most ill and producing droplets.
2. ***How easily the virus spreads from person-to-person appears highly variable***.[42 43 44]
   - 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.
   - Person-to-person spread 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.***[42 43 45]
   - 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.

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

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

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

[45] 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.***[46]
   - 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 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 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 some 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.

[46] 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 some 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 all across the U.S. and the world.
   - Ancestry does not make a person more vulnerable to COVID-19.
   - People wear face coverings for many reasons, including air pollution and pollen.
   - As COVID-19 continues to spread in the U.S. and the world, any person could become infected and get sick.
3. ***There are things people can do to prevent and reduce stigma.***[47]
   - Speak up if you hear, see, or read misinformation or harassment.
   - Show compassion and support for those most closely impacted.
   - Report harassment to 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.

[47] 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. *It is too early to know whether COVID-19 will persist as a pandemic next year.*
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. ***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 be considered a pandemic again.
   - 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.***[48]
   - 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 can shortened 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 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 face coverings 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.

[48] 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 large airborne droplets.*
2. *Experts warn that the virus that causes COVID-19 can be carried by aerosols — small airborne droplets — but are unclear about how dangerous they are.*
3. *Surfaces potentially contaminated with virus must be thoroughly disinfected.*

Longer Answer:

1. ***The virus that causes COVID-19 is transmitted primarily by large airborne droplets.***[49] [50]
   - 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 fall to the ground to small ones that stay aloft.
   - Large airborne droplets with the virus that causes COVID-19 can travel up to 6 feet.
   - Cloth face coverings may help reduce transmission of large airborne droplets containing the virus that causes COVID-19.
2. ***Experts warn that the virus that causes COVID-19 can be carried by aerosols — small airborne droplets — but are unclear about how dangerous they are.***
   - 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.
     - Aerosols with small airborne droplets are emitted when a person is breathing and talking.
     - Aerosols consist of particles about the size of a red blood cell.
   - Because a small airborne droplet with the virus that causes COVID-19 is detectable in the air does not mean that there is enough virus present to infect someone.
     - If small airborne droplets prove to be significant in spreading COVID-19, a 6-foot distance between persons would not be completely protective.
   - Concerns about small airborne droplets is greatest in laboratory settings and intensive care units where virus counts are high and where close, sustained contact takes place.
   - Environmental conditions, such as air currents, determine how far droplets can travel.
3. ***Surfaces potentially contaminated with virus must be thoroughly disinfected.***
   - Frequent cleaning and disinfection of surfaces is a 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 rather than from surface transmission.

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

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

200 Series: Travel Questions

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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 typically to restrict the geographical movement of people who are, or may be, infected with an infectious disease and thus 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 quarantines 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 health care providers.
3. ***Effective travel restrictions and quarantine alone may not stop disease spread.***
   - Travels 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 quarantine can result in stigmatizing people.[51]
   - Restrictions such as social distancing, school closures, or cancelling large public gatherings can help limit the spread of disease.

[51] 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 travelling.*
2. *Travelling increases the chances of getting COVID-19.*
3. *When travelling, people should practice good hygiene and minimize close contact with others.*

Longer Answer:

1. ***It is understandable that people are concerned about travelling.***
   - 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[52] for the latest information.[53]
2. ***Travelling increases the chances of getting COVID-19.***
   - Federal and state guidelines advise against nonessential 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.
   - CDC recommends that those at higher risk for COVID-19, such as older adults and people with underlying conditions, avoid all cruise travel and nonessential air travel.
3. ***When travelling, 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 wipe surfaces such as tray tables, seat belts, and arm rests.
   - People who are sick with fever, cough, or difficulty breathing should postpone traveling.

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

[53] 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 risk of exposure against 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 spread of COVID-19.*

Longer Answer:

1. ***International travel restrictions must balance risk of exposure against costs of disrupting the economy.***
   - Free movement of persons and goods between the U.S. and other countries is important to the global economy.
   - Travel restrictions can adversely impact the ability of Americans traveling abroad to return to the US without undue interference.
   - Severe travel restrictions are normally 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 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 the disease and about why there is so much variability in sickness from the disease.
3. ***International travel restrictions are being imposed to limit spread of COVID-19.***
   - Travel restriction information is continually updated at the CDC and US State Department websites. [54] [55]
   - 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.

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

[55] 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.***[56] [57]
   - The U.S. balances risks and other factors in setting COVID-19 travel restrictions.
   - The U.S. has established limited and controllable entry points for international travelers.
   - The U.S. has a risk -based program for screening international travelers.

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

[57] 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. *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.[58]
   - 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. ***CDC has established risk-based criteria for setting international travel restrictions.***
   - CDC's risk assessment travel restriction criteria include:
     - Widespread sustained (ongoing) transmission;
     - Sustained (ongoing) community transmission; and
     - Limited community transmission.
   - Travelers should consult the CDC and State Department travel information web page for current information.[58] [59]

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

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

206. Why isn't the U.S. government placing travel and other restrictions on people from any country that has COVID-19?

Key Messages/Shorter Answer (Soundbite):

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

Longer Answer:

1. ***The U.S. has set travel and other restrictions on countries experiencing significant COVID-19 outbreaks.***
   - U.S. border patrol agents are asking travelers about their recent travel history and distributing 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.
   - CDC provides a daily update of destinations to be avoided.[60]
2. ***In setting travel restrictions and other 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. ***CDC has established risk-based criteria for setting travel and other restrictions for COVID-19.***
   - CDC's risk assessment levels for travel restriction criteria include: widespread sustained (ongoing) transmission; sustained (ongoing) community transmission; and limited community transmission.
   - For up-to-date information, travelers should consult the CDC travel information web page[60] or U.S. State Department travel advisory web page.[61]
   - If the spread of COVID-19 increases in other countries, travel notices or public health precautions such as quarantine procedures may be implemented as needed.

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

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

300 Series: Protection Questions

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

Key Messages/Shorter Answer (Soundbite):

1. *You should inform your health care provider about close contact with someone with COVID-19.*
2. *Inform yourself about person-to-person transmission of the virus that causes COVID-19.*
3. *Call your health care provider if you notice symptoms of COVID-19.*

Longer Answer:

1. ***You should inform your health care provider about close contact with someone with COVID-19.***[62]
   - You should monitor yourself for fever, dry cough, fatigue, and shortness of breath during the 14 days after the last day you were in close contact with the sick person with COVID-19.
     - COVID-19 symptoms may include chills, repeated shaking with chills, muscle pain, headache, sore throat, and loss of taste or smell.
   - Call your health care provider and tell them about your close contact with the infected person and ask for guidance regarding quarantine.
   - Your health care provider will work with your local or state public health department and the Centers for Disease Control and Prevention (CDC) to determine if you need to be tested.
   - If seeing a health care provider is not possible, you can check your local or state health department websites, the CDC website, the CDC screening App, or contact the CDC (800-CDC-INFO) to get advice on next steps.
2. ***Inform yourself about person-to-person transmission of the virus that causes COVID-19.***[63 64]
   - Person-to-person spread occurs mainly via respiratory droplets produced when an infected person coughs or sneezes.
   - 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 largely based on what is known about similar viruses.
3. ***Call your health care provider if you notice symptoms of COVID-19.***[60 62 65]
   - 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, and loss of taste or smell.
   - If you notice COVID-19 symptoms, first call your health care provider for advice.
   - Call before you show up for care to help prevent spreading COVID-19 to others.
   - If you notice COVID-19 symptoms, seek advice before travelling to get medical care.
   - Follow expert advice, verify information, and avoid dangerous myths and rumors.[66 67]

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

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

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

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

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

[67] 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 avoiding exposure to the virus.*
2. *Cloth face coverings 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 avoiding exposure to the virus.***[68 69 70]
   - 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.
   - If the virus is spreading in your community, stay home as much as possible to reduce your risk of being exposed.
   - Avoiding exposure slows the spread of COVID-19 and reduces strain on the healthcare system.
2. ***Cloth face coverings can help reduce the spread of the virus from people who are infected, including those who do not have symptoms.***[68]
   - Cloth face coverings prevent the person wearing it from spreading respiratory droplets when talking, sneezing, or coughing, which is known as source control.
   - Since many people who are infected are not aware of their infection, it is recommended that all people wear a cloth face covering in public settings.
   - If everyone wears a cloth face covering 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 at a minimum should wear a surgical facemask.
   - People should wear a surgical facemask and eye protection when caring for someone with suspected COVID-19 infection when in close quarters.[69]
3. ***Everyday basic hygiene is important to prevent infection with the virus that causes COVID-19.***[71]
   - 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.[72]

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

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

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

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

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

303. Are cloth face coverings useful to prevent COVID-19?

Key Messages/Shorter Answer (Soundbite):

1. *Cloth face coverings 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 cloth face coverings in public to help prevent the spread of COVID-19.*
3. *Even if you wear a cloth face covering in public, it is important that you also use other preventive measures.*

Longer Answer:

1. ***Cloth face coverings may help reduce the spread of the virus from people who are infected, including those who do not have symptoms (asymptomatic people).***[73 74 75]
   - Cloth face coverings prevent the person wearing it from spreading respiratory droplets when talking, sneezing, or coughing. This is called source control.
   - 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-medical grade facemask, 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.
   - Medical grade surgical facemasks and N95 respirators should not be worn by the general public because they are critical supplies reserved for healthcare workers.
2. ***People should wear cloth face coverings in public to help prevent the spread of COVID-19.***[76]
   - Since many people who are infected are not aware of their infection (asymptomatic people), it is recommended that all people wear a cloth face covering in public settings.
   - Even if a person has tested negative for COVID-19, wearing a cloth face covering in public is recommended because a person's infection status can change quickly and unknowingly.
   - If everyone wears a cloth face covering 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.
3. ***Even if you wear a cloth face covering in public, it is important that you also use other preventive measures.***[70 74]
   - You should still stay at least six feet away from other people when in public, even while wearing a cloth face covering.
   - 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.

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

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

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

[76] 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. *Cloth face coverings may 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. ***Cloth face coverings may help prevent the spread of COVID-19.***[77] [78]
   - A cloth face covering is a type of facemask, 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.
   - The role of a cloth face covering or surgical mask is to help prevent contamination of the surrounding area when an infected person coughs or sneezes.
   - A cloth face covering or surgical mask should be used by people who have been exposed to COVID-19 and are showing symptoms of illness like coughing or sneezing.
   - People should wear cloth face coverings in public to help prevent the spread of COVID-19 because even people without symptoms also appear capable of spreading the virus.
2. ***Surgical masks and N95 respirators are often used by healthcare personnel when caring for an infected patient.***[74]
   - 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.
   - A 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.
3. ***Even when wearing a face covering, you should still practice basic hygiene.***[73] [78] [79]
   - 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.[79]

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

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

[79] 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 limited availability of surgical masks and N95 respirators, other face coverings may help prevent infection in healthy people.*

Longer Answer:

1. ***Public health officials are working to ensure adequate supply for critical personnel.***[80 81 82 83]
   - 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.***[73 77]
   - Surgical masks are recommended for use by people who have a confirmed respiratory infection and for people who are taking care of someone in close settings.
   - N95 respirators are recommended for health care workers and are not recommended for routine use in the community.
   - Hoarding of surgical masks and N95 respirators could prevent the people who need them most from getting them.
3. ***Given limited availability of surgical masks and N95 respirators, other face coverings may help prevent infection in healthy people.***[77 80]
   - People should wear face coverings or cloth masks in public to help prevent the spread of COVID-19 because even people without symptoms also appear capable of spreading the virus.
   - Surgical masks should be worn by people who show symptoms of COVID-19 to help prevent the spread of 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 close settings (at home or at a health care facility).
   - Unnecessary use of surgical masks and N95 respirators increases the likelihood of a limited supply.
   - Follow expert advice, verify information, and avoid dangerous myths and rumors.[79]

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

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

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

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

400 Series: Transmission Questions

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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. *Much is unknown about how COVID-19 is acquired.*
3. *The best way to prevent infection is avoiding exposure to the virus.*

Longer Answer:

1. ***The virus that causes COVID-19 spreads mainly from person-to-person.***[84] [85]
   - Person-to-person spread usually happens after close contact (within 6 feet) with an infected person mainly via respiratory droplets produced from coughing or sneezing.
   - New 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 just by talking, 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 own mouth, nose, or their eyes.
2. ***Much is unknown about how COVID-19 is acquired.***[86]
   - 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 what role do children play.
3. ***The best way to prevent infection is avoiding exposure to the virus.***[80]
   - 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 cover their mouth and nose with a tissue or your sleeve (not their hands) when coughing or sneezing.
   - 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.[87]

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

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

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

[87] 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.***[88]
   - There have been credible reports that people have acquired COVID-19 from infected people who did not have noticeable symptoms nor signs of illness.
   - Transmission of COVID-19 can occur in the days following infection and as a result of 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.***[89 90 91 92 93 94]
   - 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 enabler for slowing COVID-19 will be the public, whose buy-in and sense of personal responsibility can ensure comprehensive testing.
3. ***People are thought to be highly contagious when they are most symptomatic (the sickest).***[91 95]
   - 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.

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

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

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

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

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

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

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

[95] 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.***[96 97 98 99]
   - How easily a virus spreads depends on properties of the virus and the environment.
   - The virus that causes COVID-19 seems to be more contagious than most strains of flu, but less contagious than measles.
   - Data indicate that the virus that causes COVID-19 is more contagious but less deadly than the virus that causes SARS (Severe Acute Respiratory Syndrome).
   - The virus that causes COVID-19 seems to be acquired easily in confined spaces.
2. ***COVID-19 may spread before people show symptoms.***[93 100 101]
   - 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.
   - There are credible reports that people can acquire COVID-19 from infected people who do not have noticeable symptoms or signs of illness.
3. ***Person-to-person infection of COVID-19 usually happens after close contact with an infected person.***[84]
   - 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.
     - Small droplets that carry COVID-19 can travel by air as far as 20 feet, but experts believe insufficient virus is present to cause infection.
   - 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 own mouth, nose, or their eyes.

[96] 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)

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

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

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

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

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

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.***[102] [103] [104]
   - Spreading of COVID-19 may happen by touching a contaminated surface with high virus content and then touching the eyes, nose, or mouth.
   - 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 surface, 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.***[105]
   - Simple disinfectants can inhibit 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.***[106]
   - 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 health care 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.[107]

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

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

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

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

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

[107] 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 healthcare settings in which procedures or treatments generate small droplets.*

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.***[108] [109]
   - 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 containing the virus that causes COVID-19 are typically expelled from an infected person by coughs or sneezes.
   - Large airborne droplets containing the virus that causes COVID-19 typically travel no more than 6 feet.
   - Face coverings may help reduce COVID-19 transmission via large airborne droplets.
3. ***Airborne transmission of COVID-19 is most likely in healthcare settings in which procedures or treatments generate small droplets.*** [110] [111] [112]
   - 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 (about the size of a red blood cell) are emitted when a person is breathing and talking.
   - 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.
   - Because a small airborne droplet with the virus that causes COVID-19 is detectable in the air does not mean that there is enough virus present to infect someone.
   - Concerns about small airborne droplets is greatest in laboratory settings and intensive care units where virus counts are high and where close, sustained contact takes place.

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

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

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

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

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

406. Should schools and social gatherings be canceled?

Key Messages/Shorter Answer (Soundbite):

1. *Many communities are implementing social distancing by closing schools, rearranging seating, and limiting gatherings.*
2. *Sustained action by communities helps slow and prevent person-to-person spread of COVID-19.*
3. *Communities should follow federal, state, territorial, and local health departments for guidance on social distancing and reopening schools.*

Longer Answer:

1. ***Many communities are implementing social distancing by closing schools, rearranging seating, and limiting 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 cancelling public gatherings like church services, sporting events, conferences, and festivals.
   - Many communities around the U.S. have implemented social distancing.
   - Public health officials are asking communities and schools to think ahead and prepare for the possible challenges ahead.
   - Communities should work with their state, territorial, and local health departments to determine the risk and impact of disease in each of their communities.
2. ***Sustained action by communities helps slow and prevent person-to-person spread of COVID-19.***
   - Schools may need to close or rearrange seating because they are places where people congregate.
     - To protect parents, teachers, school staff, and children from becoming infected, school closures may be an important social distancing tool.
     - Children may be unaware that they are carrying the virus that causes COVID-19 and could infect others.
   - 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 impact on working parents, need to be thoroughly considered.
3. ***Communities should follow federal, state, territorial, and local health departments for guidance on social distancing and reopening schools.***
   - 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 the business sector, such as teleworking and changes to leave policies.
   - Communities should coordinate the social distancing efforts of employers, faith-based organizations, and non-profit organizations.

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

Key Messages/Shorter Answer (Soundbite):

1. *Implementing State, territorial, and local health departments are providing timely and accurate information on COVID-19.*
2. *Availability of COVID-19 testing is improving but serious shortages remain.*
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.
   - State, territorial, and local health departments are responding quickly to dispel rumors, misperceptions, and stigmatization of affected groups.
   - State, territorial, and local health departments are providing guidance to private and public sector organizations on social distancing.
   - State, territorial, and local health departments are working closely with federal agencies, Governors, and local and state emergency management agencies to help inform and plan for the response to COVID-19.
   - State, territorial, and local health departments have a highly trained and experienced workforce with years of preparing and practicing for situations like coronavirus.
2. ***Availability of COVID-19 testing is improving but serious shortages remain.***
   - Commercial and private services are augmenting CDC's efforts to provide testing for the virus that causes COVID-19 as well as antibodies to the virus and to run diagnostic samples.
   - As data from testing is shared back to state, federal, and local governments, our understanding of the coronavirus pandemic will improve.
   - As case numbers rise as a result of testing, it's important to understand this increase as an improvement in our ability to detect cases earlier and thereby help prevent transmission.
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 to COVID-19.
     - Everyday preventive actions such as hand washing help prevent the spread of COVID-19.
   - The public and communities can help state and local health departments by following local guidelines for social distancing.
   - State 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 food borne 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 the 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 in order 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 the surface material.***[113] [114]
   - 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 that has 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 a 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.
   - Frequent cleaning of face coverings should be done as studies have found the virus that causes COVID-19 can survive on the inside of a mask for up to a few days.

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

[114] 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 important 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 important 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.***
   - Family and friends can choose their preferred type of memorial practice for COVID-19 victims.
   - Many people have chosen to delay memorial services and celebrations of life until a later date.
   - Many 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 the 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.***
   - 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 deceased person suspected of having died from COVID-19.
2. ***The Personnel who interact with a deceased person should use appropriate personal protective equipment according to the level of interaction with the body.***[115] [116]
   - Guidelines may vary depending upon whether a person dies of COVID-19 in health care 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.[117]
   - The type of burial practice associated with COVID-19 is a matter of regulation and cultural choice.

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

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

[117] 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? *50*

502. How worried should people be about COVID-19? *51*

503. How contagious is the virus that causes COVID-19? *52*

504. How rapidly does COVID-19 move from place to place? *53*

505. How long will concerns about COVID-19 last? *54*

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 normally exists in animals before jumping into 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.[118] [119]
3. ***There are only a few isolated and confirmed cases of animals and pets carrying COVID-19 in the U.S.***[120]
   - 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.[121]
     - 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 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.

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

[119] https://www.dhs.gov/sites/default/files/publications/mql_sars-cov-2_-_cleared_for_public_release_20200602.pdf

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

[121] 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 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 world.***
   - COVID-19 can result in severe illness, particularly in older adults or individuals with underlying medical conditions.
   - People are concerned because everyday life presents multiple opportunities for getting sick due to often crowded and confined environments.
   - People are concerned because of the dramatic effect of COVID-19 on the economy and jobs.
   - People are concerned because of the increasing number of dramatic media stories.
   - People are concerned because of changing guidelines and recommendations.
2. ***As the COVID-19 outbreak expands, the risk of being exposed to the virus will increase.***[122]
   - 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 for exposure.
   - Public health officials are closely monitoring communities in the U.S. and will adjust guidance and recommendations as needed in order to help keep communities safe.
     - CDC routinely updates guidelines for employees returning to work.
   - Multiple countries have achieved promising results, such as reducing new COVID-19 cases, with public health measures.
3. ***The best way to prevent becoming infected is to avoid being exposed to the virus.***
   - If COVID-19 is spreading in your community, stay home as much as possible and put distance between you and other people.
   - Avoiding exposure slows the virus' spread 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, use of hand sanitizer, covering coughs and sneezes, wearing face coverings, 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 health care provider.
   - People should follow expert advice, verify information, and avoid dangerous myths.[123]

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

[123] 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.***[124 125 126]
   - The virus that causes COVID-19 is a respiratory virus which spreads primarily through close contact with an infected person.
   - The virus can be spread through droplets that are created when a person coughs or sneezes, or through droplets of saliva or discharge from the nose.
   - People infected with COVID-19 are most infectious when they are most ill.
   - 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.***[125 126 127 128]
   - 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 may carry COVID-19 as far as 20 feet but it is not clear if they are infectious.
   - 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 clinical symptoms or in conjunction with the very first mild symptoms.
3. ***Much is unknown about the spread of the virus that causes COVID-19.***[125 126 127]
   - Current data indicates that people who have symptoms cause the majority of virus spread.
   - Research is needed to learn more about how the virus that causes COVID-19 can be spread by touching contaminated surfaces.
   - Effective control of COVID-19 is difficult because the virus is highly contagious.

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

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

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

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

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

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.
2. ***Scientists are uncertain about how rapidly COVID-19 will continue to spread.***
   - How easily a virus like COVID-19 spreads from person-to-person can vary depending on different conditions, such as environment.
   - 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.
   - Contact tracing is a core disease control measure that is being used to understand and reduce the spread of COVID-19.
   - More needs to be learned about the time it takes the virus to go from one person to the next.
3. ***The virus that causes COVID-19 appears to move more rapidly than influenza or the SARS viruses.*** [129]
   - 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.

[129] 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 persist as long as COVID-19 continues to impact economies, employers, workers, and everyday life.*

Longer Answer:

1. ***Scientific data and testing will help address lingering questions and concerns about COVID-19.***[130] [131] [132] [133] [134] [135]
    - Viruses are often highly unpredictable in terms of when, where, and why they spread.
        - 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.
        - To improve COVID-19 testing, facilities need adequate supplies and trained personnel.
        - Testing availability remains insufficient and results are limited by false negatives and inability to detect low virus levels.
    - Experts are calling for widespread COVID-19 testing to aid identification, isolation, treatment, contact tracing, and antibodies that may indicate immunity.
    - Experts believe the most important enabler for slowing COVID-19 will be the public, whose buy-in and sense of personal responsibility is critical regarding 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 mutate to a weakened state that will continue to circulate in humans.
3. ***Concerns will persist as long as COVID-19 continues to impact economies, employers, workers, and everyday life.***
    - Concerns will last depending upon rate of global spread.
    - Concerns will last depending upon 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.

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

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

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

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

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

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

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

Key Messages/Shorter Answer (Soundbite):

1. *A massive effort is underway to develop a vaccine for COVID-19 using exciting new technologies.*
2. *Before being licensed for wide use, new vaccines have to first be tested to see if they are safe and effective.*
3. *Initial supplies of a COVID-19 vaccine would be for those at highest risk of infection.*

Longer Answer:

1. ***A massive effort is underway to develop a vaccine for COVID-19 using exciting new technologies.***[136]
   - Many countries are accelerating projects using new technologies to create safe and effective COVID-19 vaccines.
     - Using DNA and RNA technologies, scientists quickly developed a test, within two weeks from discovery of how the virus enters cells, and within two months initiated clinical trials of therapeutics and vaccines.
     - Historically it has taken years to make a vaccine.
   - Potential vaccines for COVID-19 have already advanced in clinical trials.
   - Experts believe that many new and approved vaccine technologies will speed up development.
   - Many new vaccine technologies engage the body's natural immune system to fight the virus.
     - Recently approved immune stimulants (technically known as *adjuvants*) can enhance vaccine performance.
2. ***Before being licensed for wide use, new vaccines have to first be tested to see if they are safe and effective.***[137]
   - In the U.S., a vaccine can be used before it is licensed but this requires an Emergency Use Authorization and an informed consent process.
   - If a vaccine appears to be safe and effective in early stage trials, it might become more widely available under an Emergency Use Authorization rather than as an FDA licensed vaccine.
3. ***Initial supplies of a COVID-19 vaccine would be for those at highest risk of infection.***
   - Indications for vaccine use will likely be prioritized for those at highest risk of complications from disease and those who have the highest risk of exposure.
   - Guidance for vaccine use will be provided by the U.S. Department of Health and Human Services (HHS)/Centers for Disease Control and Prevention (CDC).
   - People at highest risk of infection include doctors, nurses, and others who would be caring for infected patients.
   - Availability and decisions on how to use the first available COVID-19 vaccines will likely vary.
   - Until a vaccine is licensed for use, only limited amounts of the vaccine may be available.

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

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

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

Key Messages/Shorter Answer (Soundbite):

1. *Currently there are no specific medical treatments proven safe and effective against COVID-19.*
2. *If you believe you have been exposed to COVID-19, contact your health care provider immediately.*
3. *The best way to prevent illness is avoiding exposure to COVID-19.*

Longer Answer:

1. ***Currently there are no specific medical treatments proven safe and effective against COVID-19.***
   - Current COVID-19 treatment is almost exclusively supportive, including assisted breathing.[138]
   - Medicines that can treat COVID-19 are being aggressively developed.
   - Large numbers of clinical trials are ongoing.
     - Based on preliminary data, the US Food and Drug Administration (FDA) authorized remdesivir, which appears to shorten COVID-19 illness, for treatment of patients under an emergency use authorization.[139]
     - Preliminary data indicate the anti-malarial medicine, hydroxychloroquine, either with or without other medicines, does not reduce the need for mechanical ventilation in patients hospitalized with COVID-19.[140]
2. ***If you believe you have been exposed to COVID-19, contact your health care provider immediately.***
   - Common symptoms of COVID-19 include fever, dry cough, fatigue, and shortness of breath.
     - COVID-19 symptoms may include chills, repeated shaking with chills, muscle pain, headache, sore throat, and loss of taste or smell.
   - Call your health care provider if you have COVID-19 symptoms and have been in an area where COVID-19 has been identified.
   - Call your health care provider if you have COVID-19 symptoms and have been in contact with someone confirmed or being evaluated for COVID-19.
   - Call ahead before you go to a health care provider office or emergency room and tell them about your recent travels, contacts, and symptoms.
   - Health care providers will evaluate whether you have COVID-19.
3. ***The best way to prevent illness is avoiding exposure to COVID-19.***
   - Avoid close contact with people who are sick with COVID-19.
   - 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.
   - Cover your mouth and nose when coughing or sneezing.
   - Asymptomatic transmission of COVID-19 supports calls for wider testing.
   - Follow expert advice, verify information, and avoid dangerous myths and rumors.[141]

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

[139] https://www.niaid.nih.gov/news-events/nih-clinical-trial-shows-remdesivir-accelerates-recovery-advanced-covid-19

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

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

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

Key Messages/Shorter Answer (Soundbite):

1. *Many hospitals are managing surges of patients with COVID-19.*
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 are managing surges of patients with COVID-19.

- Many hospitals have exceeded their capacity by the number of COVID-19 patients seeking care.
- Hospitals are expanding their COVID-19 treatment and isolation facilities.
- Hospitals are providing additional training for staff on COVID-19 prevention, containment, and control.
- Many hospitals are reporting shortages of available beds, testing kits, protective gear, trained staff, and necessary medical equipment like ventilators.
- Whether a hospital is overwhelmed by COVID-19 depends upon many factors including current capacity and the number of patients who seek care.

2. Hospital staff are trained to manage surges of patients with COVID-19.

- Hospital workers are being trained to quickly identify potential COVID-19 cases.
  - Health care workers are being trained to be on the watch for patients with symptoms that in the early stages of illness may seem like the flu.
  - Health care workers can test for COVID-19 in suspected individuals.
- Hospital workers are being trained to take travel histories that may indicate COVID-19 infection.
- Hospital workers are being trained how to put on and take off protective gear, draw blood safely, and dispose of biohazardous materials.
- In hard hit settings, COVID-19 has led to exhausted staff, shortages of PPE and ventilators, while also fostering innovation.

3. Most hospitals have experience managing disease outbreaks.

- Working with federal, state, territorial, and local health departments, hospitals have helped control previous outbreaks of 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.
- CDC has developed a highly specific Hospital Preparedness Assessment Tool for COVID-19.[142]

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

604. 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.***[143] [144]
   - Hydroxychloroquine and chloroquine, along with many other potential treatments, are being studied in clinical trials for COVID-19.
   - FDA authorizes use of hydroxychloroquine and chloroquine for COVID-19 in clinical trial settings or when treating patients through an Emergency Use Authorization.
   - FDA has issued a safety warning that hydroxychloroquine and chloroquine can cause abnormal heart rhythms and a dangerously rapid heart rate.
     - Hydroxychloroquine and chloroquine can cause abnormal heart rhythms, a dangerously rapid heart rate, and carry higher risk in persons with underlying kidney disease or heart conditions other than rhythm disturbances.
   - 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.***[145]
   - 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.***[144]
   - 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 illness) unless prescribed.

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

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

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

605. What are the highest-priority medical interventions being developed for COVID-19?

Key Messages/Shorter Answer (Soundbite):

1. *A safe and effective vaccine for COVID-19 is the ultimate control tool.*
2. *Medicines that can prevent new COVID-19 cases are being explored.*
3. *Currently there are no specific medical treatments proven safe and effective against COVID-19.*

Longer Answer:

1. ***A safe and effective vaccine for COVID-19 is the ultimate control tool.***
   - Large numbers of potential vaccines related to COVID-19 are being explored for development.
     - Vaccine development and testing typically takes years.[146]
     - Vaccine research and development is very expensive and only a small percentage of vaccines that enter clinical trials receive regulatory approval.
   - Recently approved vaccine technologies, such as highly active immune stimulants (technically known as *adjuvants*), could accelerate COVID-19 vaccine development.
   - Many experimental technologies using DNA and RNA based vaccines are being explored that help the body mount an immune response to viruses.
   - Vaccines typically provide protection by giving people a bit of the natural virus in order to trigger an immune response including production of antibodies.
2. ***Medicines that can prevent new COVID-19 cases are being explored.***
   - Preventive medicines that activate the inherent immune system are important for strategies aimed at containing COVID-19 through testing, treatment, and tracing.
   - Medicines that can stimulate the human immune system to neutralize the virus that causes COVID-19 are among the most promising preventive medicines.
     - Medicines that activate the inherent immune system may be able to overcome mutations in the virus that causes COVID-19 that could render vaccines ineffective.
     - Medicines that activate the inherent immune system can be used in settings with active virus transmission, such as hospitals, nursing homes, or ships.
   - Medicines that kill or inhibit the virus that causes COVID-19 could also be used for prevention.
   - Preventive COVID-19 medicines are likely to be available well before a vaccine.
3. ***Currently there are no specific medical treatments proven safe and effective against COVID-19.***
   - Current COVID-19 treatment is almost exclusively supportive, including assisted breathing.
   - Medicines that can treat COVID-19 are being aggressively developed and large number of clinical trials are ongoing.
     - Based on preliminary data, the US Food and Drug Administration (FDA) authorized remdesivir, for treatment of patients under an Emergency Use Authorization.[147]
     - Preliminary data indicate the anti-malarial medicine, hydroxychloroquine, does not reduce the need for mechanical ventilation in patients hospitalized with COVID-19.

[146] http://pennstatehershey.adam.com/content.aspx?pid=35&gid=12623

[147] https://www.niaid.nih.gov/news-events/nih-clinical-trial-shows-remdesivir-accelerates-recovery-advanced-covid-19

606. 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 could vary 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.***[148]
   - Experts are calling for widespread COVID-19 testing to facilitate identification, isolation, treatment, and contact tracing.
   - There are many COVID-19 tests including a viral test for current infection and an antibody test for evidence of previous infection.
   - CDC developed a diagnostic test for COVID-19 and continues to provide those tests to state and local public health departments.
   - Commercial manufacturers are producing diagnostic tests and are making them available to medical providers.
     - The supply of diagnostic tests continues to increase.
     - Public health authorities are working to reduce shortages of testing supplies, including chemical reagents and nasal swabs.
2. ***Testing for COVID-19 could vary by location.***[149]
   - Testing for COVID-19 may vary by location due to many factors including availability of test kits, regulatory barriers, restrictive policies regarding who is tested, and community readiness and capacity.
   - Even though testing is increasing, state and local governments are asking for many more individuals to be tested.
   - Current testing criteria include:
     - Persons with symptoms of potential COVID-19 infection.
     - Persons without symptoms who are prioritized by health departments or clinicians.
   - For more information on testing, people should contact their state, local, tribal, or territorial health department or their medical provider.
3. ***Public health authorities are expanding testing for past exposure and immunity.***[150]
   - 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 can protect someone from reinfection or for how long.
   - Public health authorities are working to evaluate the effectiveness of the many different tests for antibodies that are being developed.

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

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

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

607. What are the COVID-19 tests?

Key Messages/Shorter Answer (Soundbite):

1. *There are diagnostic tests for COVID-19.*
2. *There are antibody tests for COVID-19.*
3. *There are COVID-19 tests for antigens – virus particles that cause the body to create an antibody.*

Longer Answer:

1. ***There are diagnostic tests for COVID-19.***[151]
   - Doctors use diagnostic tests to determine who is currently sick with COVID-19.
     - Diagnostic tests use a sample of mucus typically taken from a person's nose or throat to look for the genetic material of the coronavirus.
     - Scientists are investigating better diagnostic tests using saliva.
   - A positive diagnostic result can generally be trusted to be accurate.
     - The likelihood of a falsely negative result depends upon several factors including timing of sample collection and the type of specimen collected.
     - The diagnostic test may not identify someone who has recently been infected.
     - Swabs can fail to pick up signs of active infection with the virus that causes COVID-19.
   - Most COVID-19 diagnostic tests can produce results within hours to days.
     - COVID-19 diagnostic samples sent to central labs (laboratories exclusively responsible for testing and consistency) can take several days to get results.
     - Rapid tests can be run on specialized equipment and produce results within minutes, but questions have been raised regarding reliability of the results.
2. ***There are antibody tests for COVID-19.***
   - 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. but the accuracy of the available tests is still uncertain.
   - Antibody tests identify people who have previously been infected and may have immunity.
     - Antibody tests do not show whether a person is currently infected.
     - Antibody tests help track the spread of the coronavirus through a population.
   - It is not yet known whether having antibodies gives a person immunity.
     - Antibody tests provide unverified information about community rates of immunity.
   - Antibody test quality is a concern as many antibody tests do not have full regulatory approval.
     - Only a few antibody tests have voluntarily submitted data for regulatory approval.
     - Some antibody tests are being validated by individual medical labs or universities.
3. ***There are COVID-19 tests for antigens – virus particles that cause the body to create an antibody.***
   - The COVID-19 antigen test provides valuable information regarding whether people are currently infected with the virus.
   - The antigen (viral proteins) test can be a quick, screening test for active infections.
   - The antigen test looks for viral proteins in nose and throat secretions.
   - Health care providers typically confirm a positive antigen test with the COVID-19 diagnostic test.

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

608. 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.***[152]
   - 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.
   - If communities can effectively trace and self-quarantine contacts and isolate infected persons, strict social distancing strategies can be relaxed.
3. ***Public awareness and acceptance of contact tracing is critical.***
   - Contact tracing must be widely accepted in order 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.

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

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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. *Federal, state, and local authorities are slowing the spread of COVID-19 through 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.***
   - Health care 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.
     - Health care workers 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. ***Federal, state, and local authorities are slowing the spread of COVID-19 through social distancing.***[153]
   - People are thought to be highly contagious when they are most symptomatic (the sickest), but people without symptoms can also be contagious.
   - CDC has detailed guidelines on monitoring and movement related to COVID-19.
   - Social distancing guidelines are intended to "flatten the curve," i.e., 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.

[153] 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. *Health care workers 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. ***Health care workers quickly isolate a person identified to have COVID-19.***[154]
   - Heath care workers are trained to identify patients with COVID-19 symptoms.
   - Health care workers 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.
   - Health care workers are trained and practiced in patient isolation.
2. ***Persons identified as having COVID-19 receive treatment.***
   - Health care workers 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 health care systems are experienced in caring for patients with infectious disease.
3. ***Persons infected with COVID-19 will be interviewed for contacts following detailed guidelines.***
   - Early tracing of COVID-19 contacts can help reduce transmission.
   - Health care workers 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.

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

703. What can communities do to prepare for 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.***[155]
   - 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.[156]
   - 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.
   - 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.
3. ***Communities can help prevent discrimination or stigma.***[157]
   - 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.

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

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

[157] 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.***[158]
   - CDC has extensive guidance for emergency responders handling COVID-19.
   - CDC guidelines recommends 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.

[158] 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.***[159]
   - 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 have been used successfully to help prevent the spread of communicable disease.
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.
     - allowing for the delivery of 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:
     - separation and restriction of the movement of people.
     - 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.
   - CDC has published guidelines on monitoring symptoms and controlling movement of persons that relate to quarantine.

[159] 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 homes 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.***[160]
   - 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 home.
   - 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.

[160] 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 voluntarily quarantine at home.*
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 voluntarily quarantine at home.***[161 162 163]
   - 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.***[164 165]
   - 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.***[161 162]
   - 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.

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

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

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

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

[165] 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 voluntarily quarantine at home.*
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.***[166]
   - 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 voluntarily quarantine at home.***[167]
   - 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.***[168]
   - 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.

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

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

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

709. How can individuals prepare for COVID-19?

Key Messages/Shorter Answer (Soundbite):

1. *People should comply with the social distancing actions and recommendations being implemented in states and communities.*
2. *Individuals should create a household plan of action, based on current guidance.*
3. *Individuals should practice every day basic hygiene to help prevent infection.*

Longer Answer:

1. ***People should comply with the social distancing actions and recommendations being implemented in states and communities.***[169]
   - In many communities, health officials are recommending social distancing actions that reduce face-to-face contact to limit exposure and illness.
   - Social distancing measures include canceling social gatherings and closing schools.
   - Parents should reach out to understand the school plan for continuing education and social services (such as student meal programs) during school dismissals.
2. ***Individuals should create a household plan of action, based on current guidance.***[170]
   - Meet with members of your household, relatives, friends, and neighbors to discuss what to do if a COVID-19 outbreak occurs in your community.
   - Plan ways to care for those who might be at greater risk for serious complications, including the elderly and people with underlying conditions.
   - Make arrangements for back-up care for children or elderly relatives in case their regular caregiver is sick or their school is closed.
3. ***Individuals should practice every day basic hygiene to help prevent infection.***[171]
   - 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.[172]

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

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

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

[172] 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.***[173] [174]
   - 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, moderate to severe asthma, serious heart conditions, immunocompromised status, severe obesity, diabetes, chronic kidney disease undergoing dialysis, and liver 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.***[175]
   - 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.[176]
3. ***If you know someone who is at increased risk, help them stay healthy.***[177]
   - 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 in nursing homes.

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

[174] https://www.statnews.com/2020/03/03/who-is-getting-sick-and-how-sick-a-breakdown-of-coronavirus-risk-by-demographic-factors/

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

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

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

711. What can employers do to prepare for 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.***[178] [179]
   - 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, state and local policies, and that employees are aware of these policies.
   - Employers should encourage teleworking and working from home where possible.
2. ***Employers should apply infection control measures in the office.***[180] [181]
   - 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.
3. ***Employers should stay informed and clearly communicate updates to employees.***[182]
   - 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[183] and CDC travel advisories.[184]
   - 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.

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

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

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

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

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

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

[184] 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 leaving the house, take steps to reduce your 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.***[185]
   - 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 regarding outdoor activities and facilities.
   - If outdoors, people must protect themselves and others from COVID-19 by maintaining at least six feet from others.
     - When deciding where to go outside, people should avoid busy areas that might make it hard to keep distance from others.
   - A growing body of scientific evidence indicates that spending time outdoors is important to the developmental health of children.
2. ***When going outside the house, people should take steps to reduce risk of getting or spreading COVID-19.***[186]
   - 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 wash their hands when returning from outdoor to protect from inadvertent exposure to the virus that causes COVID-19.
   - People who are sick should stay home.
3. ***Staying physically active is a healthy coping strategy for COVID-19.***
   - Physical activity can help boost your mood, reduce stress, and strengthen one's 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.

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

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

800 Series: Media Questions

801. What is expected from the news media regarding COVID-19? 78

802. Has the news media over-reacted and sensationalized COVID-19? 79

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 major 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.[187]
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.

[187] 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.***
   - 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.[188]
   - 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.

[188] 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? *81*

902. Why are rates of infection, severe illness, and death from COVID-19 higher among African- and Hispanic-Americans? *82*

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 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.***
   - COVID-19 has impacted almost every person on earth, but its 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.***[189]
   - Young people are more likely to experience mild or no symptoms but 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 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 severity of COVID-19.***
   - 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 still much is 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.
   - Some experts believe that an environmental-induced virus mutation could change COVID-19.
     - The 1918 Spanish flu seemed to die down during the summer only to come back with a deadlier, mutated strain in the fall.
   - Social distancing, face protection measures, and limits on gathering can affect how many people become infected.

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

902. Why are rates of infection, severe illness, and death from COVID-19 higher among African- and Hispanic-Americans?

Key Messages/Shorter Answer (Soundbite):

1. *Data indicate that African- and Hispanic-Americans 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 that African- and Hispanic-Americans.*
3. *Authorities and the public can help address COVID-19 racial and minority disparities.*

Longer Answer:

1. ***Data indicate that African- and Hispanic-Americans are at higher risk of COVID-19.***
   - Consistent with prior public health emergencies, COVID-19 infection, severe illness and death rates tend to be higher for racial and ethnic minority groups.
   - Public health authorities have found more confirmed infections, severe illness, and death among African- and Hispanic-American persons than that of white or Asian persons.
     - In New York City, death rates from COVID-19 among African- and Hispanic-American persons have been higher than that of white or Asian persons.
     - In Louisiana, over two-thirds of COVID-19 deaths have occurred among black persons, who represent roughly one-third of the state's population.
2. ***Living conditions, work circumstances, underlying health conditions, and access to care contribute to higher rates of COVID-19 disease among that African- and Hispanic-Americans.***[190]
   - Living conditions for some African- and Hispanic-Americans, such as densely populated housing, may make it difficult to follow prevention measures such as physical distancing.
   - Economic circumstances for some African- and Hispanic- Americans, 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.
   - Underlying health conditions for some African- and Hispanic-Americans may contribute to higher rates of COVID-19.
   - Access to health care for some African and Hispanic Americans, such as 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.***[190]
   - Health officials are collecting data that can help prevent and reduce health disparities in African and Hispanic Americans.
   - 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 endorse and 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.

[190] 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? *84*

1002. How long will it be necessary to have social distancing in the U.S.? *85*

1003. If social distancing works, will we have another spike or continued cases? *86*

1004. When will there be a return to everyday life and work activities? *87*

1005. When and how will the COVID-19 pandemic end? *88*

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.***[191]
   - 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 several weeks.
   - Public health authorities provide updates on how long people should wait after their first positive COVID-19 test before lifting restrictions.
   - Ideally, recovery criteria include no symptoms and two negative tests spaced apart.
   - Guidelines regarding recovery criteria are rapidly changing.
2. ***Scientists are still uncertain whether people who have recovered from COVID-19 have protective immunity.***[192]
   - 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.

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

[192] 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 important until there is widespread testing, preventive medicines, treatments, and vaccines against COVID-19.*
2. *Some 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 important until there is widespread testing, preventive medicines, treatments, and vaccines against COVID-19.***[193]
   - 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 enabler 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. ***Some social distancing is likely to be recommended while COVID-19 continues to spread.***
   - 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.***[194]
   - Relaxed social distancing means less strict implementation of accepted 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 disease need to protect vulnerable people.
   - In the 1918 influenza pandemic, 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, some degree of social distancing will likely be needed.

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

[194] 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. *Social distancing will best 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.***[195]
   - 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. ***Social distancing will best 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.
   - Social distancing that prevents spikes can result in untreated health problems.
   - Public health authorities are exploring different combinations of social distancing measures.
     - Several states have lifted stay at home orders and still recommend wearing face coverings, 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 disease 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.

[195] 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.***[196]
   - 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.***[197]
   - 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 disease need to protect vulnerable people.
   - Experts are uncertain as to when it would be safe to allow large gathering 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, some social distancing will likely be needed.

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

[197] 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 be considered a pandemic again.
   - 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.***[198]
   - 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 face; and cover coughs and sneezes.
   - To help end the COVID-19 pandemic sooner, people should wear face coverings in public, clean frequently touched surfaces, follow expert guidance, and avoid dangerous myths.

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

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Appendix A: COVID-19 Resources

Webpages:

Reopening:

- Guidelines for Opening Up America Again.
  https://www.whitehouse.gov/openingamerica/
- This is where all 50 states stand on reopening.
  https://www.cnn.com/interactive/2020/us/states-reopen-coronavirus-trnd/
- State of California Resilience Roadmap (reopening plan).
  https://www.gov.ca.gov/wp-content/uploads/2020/04/Update-on-California-Pandemic-Roadmap.pdf
- A Transition Plan for a Healthy Wyoming.
  https://drive.google.com/file/d/1cbsfIjNr3b-jBWwSo194OdW9H1JsppUC/view
- COVID-19 Responsible Protocols for Getting Ohio back to Work.
  https://coronavirus.ohio.gov/wps/portal/gov/covid-19/responsible-restart-ohio/Responsible-Protocols/Responsible-Protocols
- New Jersey: The Road Back, Restoring Economic Health through Public Health.
  https://covid19.nj.gov/faqs/nj-information/general-public/when-and-how-is-new-jersey-lifting-restrictions-what-does-a-responsible-and-strategic-restart-of-new-jerseys-economy-look-like
- Reopening Guidance for Cleaning and Disinfecting Public Spaces, Workplaces, Businesses, Schools, and Homes.
  https://www.cdc.gov/coronavirus/2019-ncov/community/reopen-guidance.html
- COVID-19 Forecasts.
  https://www.cdc.gov/coronavirus/2019-ncov/covid-data/forecasting-us.html
- Communities, Schools, Workplaces, and Events: Guidance for Where You Live, Work, Learn, Pray, and Play.
  https://www.cdc.gov/coronavirus/2019-ncov/community/index.html
- Steps to Stay Safe.
  https://www.cdc.gov/coronavirus/2019-ncov/community/stay-safe.html

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CDC

- CDC's COVID-19 homepage – including latest updates and overview.
  https://www.cdc.gov/coronavirus/2019-ncov/index.html
- CDC "COVIDView" Weekly Summary.
  https://www.cdc.gov/coronavirus/2019-ncov/covid-data/covidview/index.html
- Contact tracing.
  https://www.cdc.gov/coronavirus/2019-ncov/php/open-america/contact-tracing.html
- Contact Tracing: Part of a Multipronged Approach to Fight the COVID-19 Pandemic.
  https://www.cdc.gov/coronavirus/2019-ncov/downloads/php/principles-contact-tracing-booklet.pdf
- Serologic (Antibody) Testing.
  https://www.cdc.gov/coronavirus/2019-ncov/lab/serology-testing.html
- Reopening Guidance for Cleaning and Disinfecting Public Spaces, Workplaces, Businesses, Schools, and Homes.
  https://cdc.gov/coronavirus/2019-ncov/community/reopen-guidance.html
- How COVID-19 Spreads.
  https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/how-covid-spreads.html
- Preventing Spread of COVID-19 in Communities.
  https://www.cdc.gov/coronavirus/2019-ncov/community/index.html
- Resources for State, Local, Territorial and Tribal Health Departments.
  https://www.cdc.gov/coronavirus/2019-ncov/php/index.html
- Cases in the U.S.
  https://www.cdc.gov/coronavirus/2019-ncov/cases-in-us.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
- 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

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- Respirator Fact Sheet.
  https://www.cdc.gov/niosh/npptl/topics/respirators/factsheets/respsars.html
- Cleaning and Disinfection of Households.
  https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/cleaning-disinfection.html
- Decontamination and Reuse of Filtering Facepiece Respirators.
  https://www.cdc.gov/coronavirus/2019-ncov/hcp/ppe-strategy/decontamination-reuse-respirators.html
- Recommendation Regarding the Use of Cloth Face Coverings, Especially in Areas of Significant Community-Based Transmission.
  https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/cloth-face-cover.html

WHO

- Global research on novel coronavirus.
  https://www.who.int/csr/don/05-january-2020-pneumonia-of-unkown-cause-china/en/
- Technical guidance by topic and by date.
  https://www.who.int/emergencies/diseases/novel-coronavirus-2019/technical-guidance
- 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/
- Risk communication and community engagement (RCCE) readiness and response to the 2019 novel coronavirus (2019-nCoV). Interim guidance, v2. January 26, 2020.
  https://www.who.int/publications-detail/risk-communication-and-community-engagement-readiness-and-initial-response-for-novel-coronaviruses-(-ncov)

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Other Institutions' COVID-19 Specific Pages:

- Association of State and Territorial Health Officials (ASTHO).
  https://www.astho.org/
- British Medical Journal (BMJ), BMJ.
  https://www.bmj.com/coronavirus
- Cambridge University Press.
  https://www.cambridge.org/core/browse-subjects/medicine/coronavirus-free-access-collection
- Chinese Medical Association.
  http://medjournals.cn/COVID-19/index.do
- Cochrane.
  https://www.cochrane.org/coronavirus-covid-19-cochrane-resources-and-news
- Disease Outbreak News (DON).
  https://www.who.int/csr/don/archive/disease/novel_coronavirus/en/
- Elsevier.
  https://www.elsevier.com/connect/coronavirus-information-center
- European Centre for Disease Prevention and Control (ECDC).
  https://www.ecdc.europa.eu/en/covid-19-pandemic
- Journal of the American Medical Association (JAMA) Network.
  https://jamanetwork.com/journals/jama/pages/coronavirus-alert
- The Lancet.
  https://www.thelancet.com/coronavirus
- LITCOVID: US National Library of Medicine.
  https://www.ncbi.nlm.nih.gov/research/coronavirus/docsum?filters=topics.General%20Info
- New England Journal of Medicine.
  https://www.nejm.org/coronavirus
- Oxford University Press.
  https://academic.oup.com/journals/pages/coronavirus?cc=us&lang=en&
- Public Library of Science (PLOS).
  https://blogs.plos.org/plos/2020/01/novel-coronavirus-2019-ncov-outbreak/
- Science.
  https://www.sciencemag.org/collections/coronavirus
- Springer Nature.
  https://www.springernature.com/gp/researchers/campaigns/coronavirus
- Social Science Reprint Network (SSRN) (Preprints).
  https://www.ssrn.com/index.cfm/en/coronavirus/
- Wiley.
  https://novel-coronavirus.onlinelibrary.wiley.com/

Continued – Appendix A: COVID-19 Resources

Background Research – Articles and White Papers:

- Substantial undocumented infection facilitates the rapid dissemination of novel coronavirus (SARS-CoV2).
  https://www.ncbi.nlm.nih.gov/pubmed/32179701/
- Presymptomatic Transmission of SARS-CoV-2 — Singapore, January 23 – March 16, 2020. Wei WE, Li Z et al.
  https://www.cdc.gov/mmwr/volumes/69/wr/mm6914e1.htm
- CDC MMWR: Asymptomatic and Presymptomatic SARS-CoV-2 Infections in Residents of a Long-Term Care Skilled Nursing Facility — King County, Washington, March 2020.
  https://www.cdc.gov/mmwr/volumes/69/wr/mm6913e1.htm
- Presymptomatic SARS-CoV-2 Infections and Transmission in a Skilled Nursing Facility.
  https://www.nejm.org/doi/full/10.1056/NEJMoa2008457?query=RP
- Presumed Asymptomatic Carrier Transmission of COVID-19.
  https://jamanetwork.com/journals/jama/fullarticle/2762028
- Rapid Expert Consultation on the Possibility of Bioaerosol Spread of SARS-CoV-2 for the COVID-19 Pandemic. National Academies of Sciences, Engineering, and Medicine.
  https://doi.org/10.17226/25769
- Aerosol and Surface Stability of SARS-CoV-2 as Compared to SARS-CoV-1, Van Doremalen, N., Bushmaker, T. et al.
  https://www.nejm.org/doi/full/10.1056/NEJMc2004973

Other Resources:

- Map/dashboard: Coronavirus COVID-19 Global Cases by Johns Hopkins CSSE.
  https://www.arcgis.com/apps/opsdashboard/index.html#/bda7594740fd40299423467b48e9ecf6
- Map/dashboard: WHO Novel Coronavirus (COVID-19) Situation.
  https://covid19.who.int/
- Map/dashboard/tracker: COVID-19 In US and Canada with real-time updates.
  https://coronavirus.1point3acres.com/en
- Institute for Health Metrics and Evaluation (IHME): COVID-19 US state-by-state projections.
  https://covid19.healthdata.org/united-states-of-america
- Training for Contact Tracing.
  https://learn.astho.org/p/ContactTracer
- Coronavirus Disease 2019: Myth vs. Fact.
  https://www.hopkinsmedicine.org/health/conditions-and-diseases/coronavirus/2019-novel-coronavirus-myth-versus-fact