COVID 19

CORONAVIRUS DISEASE

The Army Public Health Roadmap to Coronavirus Disease Risk Reduction in Army Training Formations

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Approved for public release; distribution unlimited.

TA-541-0520 version 1.2

August 2020

U.S.ARMY

Public Health
Prevent. Promote. Protect.
Army Public Health

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BACKGROUND

In December 2019, a novel coronavirus known as SARS-CoV-2 (the virus that causes coronavirus disease [COVID-19]) was first detected in Wuhan, Hubei Province, People's Republic of China, causing outbreaks of the coronavirus disease that has now spread globally. The Secretary of Health and Human Services declared a public health emergency on 31 January 2020, under section 319 of the Public Health Service Act (42 U.S.C. 247d), in response to the spread of COVID-19. On 20 March 2020, the President of the United States proclaimed that the COVID-19 outbreak in the United States constituted a national emergency, retroactive to 1 March 2020.

SARS-CoV-2 is a highly contagious virus that spreads from person to person mainly through respiratory droplets produced, for example, when an infected person coughs or sneezes. It can also spread when a person touches a surface or object that has the virus on it, then touches their mouth, nose, or eyes. The virus appears to spread at least twice as efficiently as influenza. COVID-19 is the acute respiratory infection caused by this new strain of coronavirus. Persons infected by SARS-CoV-2 may experience a range of symptoms including, most commonly, fever a dry cough, fatigue, lack or loss of appetite for food, shortness of breath, sputum (phlegm) production, muscle aches. Other COVID-19 symptoms may include headache, myalgia and arthralgia (muscle and joint pain), rhinorrhea (runny nose), conjunctivitis (pink eye), sore throat, anosmia and ageusia (loss of smell and taste), chest pain or pressure, gastrointestinal symptoms, and diarrhea. Most symptomatic COVID-19 cases experience mild to moderate symptoms. However, the virus can cause pneumonia, severe acute respiratory distress syndrome, multi-organ failure, and, in some cases, death. An unknown but potentially substantial proportion of individuals infected with the virus remain asymptomatic (i.e. without symptoms).

The U.S. Army has conducted operations, including training, during pandemic conditions from novel respiratory viruses. Decades of historical data demonstrate that training populations are at high risk for transmission of respiratory diseases. The convergence of individuals from across the country at training locations may introduce illnesses to which trainees are not immune. Living and training in close quarters, and trainees' weakened immune systems from high-stress conditions further increase susceptibility to infection. Training installations should be prepared for the possibility of COVID-19 in the trainee population.

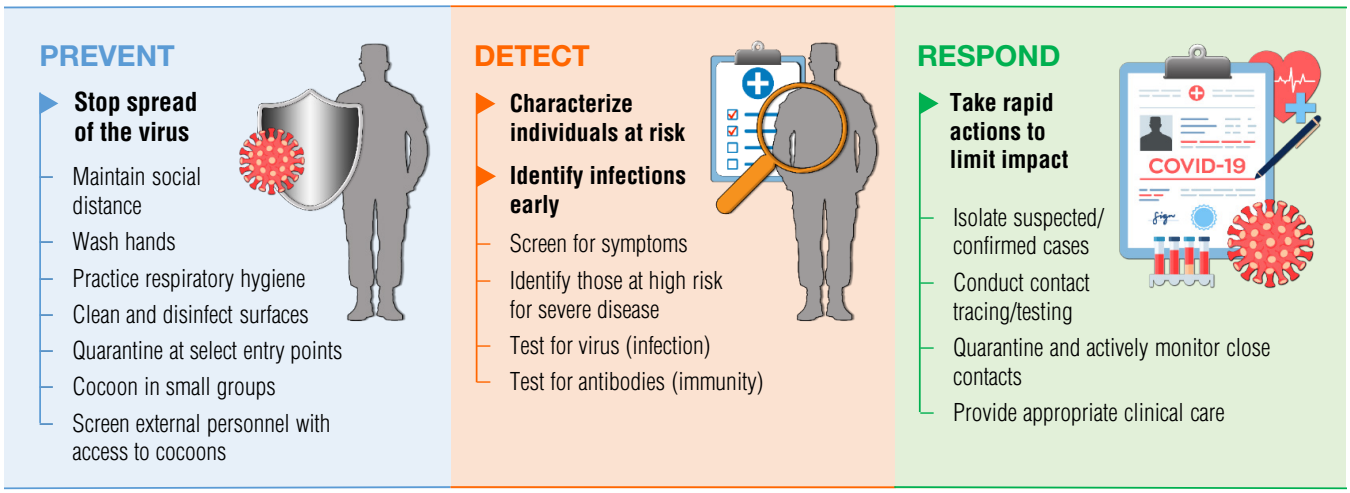
The U.S. Army Public Health Center advocates mounting a three-pronged public health offensive designed to **prevent, detect,** and **respond** to infectious disease epidemics that can be adopted to minimize the impact of the SARS-CoV-2 pandemic to Army training populations.

1. The most powerful public health weapons to fight the pandemic are those designed to **prevent** transmission of the virus. These include developing, maintaining, and improving personal and population-wide infectious disease prevention and control strategies and tactics. Examples of recommended prevention tools described in this document include social distancing, quarantine, cocoons of small groups of individuals, respiratory hygiene practices, personal hygiene practices, cleaning and disinfection, and isolation of probable and confirmed COVID-19 cases to minimize person-to-person transmission of the virus. Ultimately, development and application of a vaccine program, and resulting population immunity to the SARS-CoV-2 virus, will hopefully become the primary prevention strategy that ends the pandemic. But a SARS-CoV-2 vaccine – if it arrives – will likely take a year or more to develop, test, scale, and distribute. In the meantime, these low-tech but high yield prevention measures are key to managing COVID-19 risk in training environments.

2. Rapid and effective **detection** of individuals who may be infectious, those who are susceptible to infection, those with underlying health conditions that adversely affect the course of the disease, and those who may be immune to infection, may inform risk stratification (e.g., prevalent pre-existing conditions, infectious, susceptible, immune, etc.) and other processes that limit spread of the virus and maximize continuity of training operations. Detection strategies include population surveillance, disease modeling, screening, and aggressive contact tracing, as well as molecular and serological assay-based testing.

3. Rapid isolation of cases, in conjunction with measures designed to prevent the spread of the virus, is the primary public health **response** tool. The power of the novel coronavirus is its ability to spread from person to person in an exponential manner; one case sickens more than one other person, and soon a single case results in thousands of infected individuals. Altering that dynamic by limiting the number of individuals a given case infects is at the heart of the public health response to the pandemic. In fact, the COVID-19 outbreak ends when each new case infects fewer than one other individual, on average. Beyond isolation, much of the public health response focuses on the (non-clinical) care for COVID-19 cases, and also in the care for non-infected individuals who may be experiencing trauma in the form of adverse social, behavioral, physical, and emotional effects of the pandemic and the necessary measures being imposed to combat it.

PUBLIC HEALTH ROADMAP



Leaders, training cadre, other Soldiers, and the entire Army community can take precautions to lessen the risk of COVID-19 in training populations. Training activities can leverage the use of cocooning strategies, early identification of symptoms, and adherence to social distancing and hygiene best practices to lessen the impact of the COVID-19 pandemic on training. Leaders, training cadre, and trainees have a responsibility to their fellow Soldiers and to themselves to minimize the risk of illness and to conduct training in a manner that will support the manpower needs of the Army. Honesty is essential in assessing, identifying, and reporting possible illness.

PURPOSE

The purpose of this document is to provide public health guidance for minimizing the risk of transmission of SARS-CoV-2 in Army training populations.

APPLICABILITY

This guidance applies to all Army training activities.

ROLES AND RESPONSIBILITIES

- The Surgeon General establishes operating conditions of Army Medicine in response to the novel coronavirus.
- The U.S. Army Public Health Center establishes public health guidance for all Army environments and activities.
- Regional Health Commands and Public Health Commands coordinate with Defense Health Agency to optimize Medical Treatment Facilities' response to the COVID-19 pandemic.
- Installation Public Health Departments adopt the Prepare, Detect, and Respond approach to mitigate the local impacts of the COVID-19 pandemic.
- Installation Commanders in consultation with Public Health Emergency Officers and Installation Public Health Departments assign Health Protection Condition (HPCON) posture and activate the public health response.
- Command Surgeons ensure widest dissemination and full adherence to public health measures to reduce risk of COVID-19 in training populations.

INITIAL PHASES OF THE BASIC TRAINING PROCESS

This section covers the public health approach to minimize the impact of COVID-19 for the phases of recruitment, military entrance processing, and the reception to Initial Entry Training.

Recruitment

Recruiters are to practice social distancing, hand and respiratory hygiene, and general precautions to prevent and protect from person-to-person transmission.

Recruiting stations must display signage directing individuals to practice social distancing, hand and respiratory hygiene, and take other precautions to prevent and protect from person-to-person transmission of SARS-CoV-2. Recruiters are to ask individuals entering the recruitment station if they have had close contacts with a probable or confirmed case. Individuals who declare recent (within 14 days) close contact with a probable or confirmed COVID-19 case and/or a close contact who has experienced recent respiratory symptoms are to be prohibited from gaining further entry into the recruiting station. Recruiters may arrange a phone call, video-teleconferencing, or other approved means for coordinating a distance meeting. Alternatively, recruiters may reschedule an on-site meeting with prospective recruits for a later time, preferably no less than two weeks.

Recruiters should screen for health symptoms in prospective recruits upon their entry into a recruiting station, but they should be aware of the signs of COVID-19 (e.g., cough, increased respiratory rate, difficulty breathing), excuse any individual displaying these signs, and recommend that they seek medical guidance from their usual primary care provider.

Personal protective equipment. Recruiting station staff (and prospective recruits) should wear a cloth face covering particularly if social distancing is not possible (See, Department of Defense Memorandum, Force Health Protection Guidance (Supplement 7) - Department of Defense Guidance for the Use of Cloth Face Coverings, personal protective equipment, and Non-Pharmaceutical Interventions during the Coronavirus Disease 2019 Pandemic, dated 08 April 2020).

Recruitment station personnel are to seek guidance from a healthcare provider from the troop medical clinic or medical treatment facility if:

» They are experiencing fever and/or respiratory symptoms

» They have been in recent close contact with others experiencing respiratory symptoms

» They have been in recent close contact with others who are a probable or confirmed case of COVID-19.

Military Entrance Processing Station (MEPS)

Screen recruits for COVID-19 using a questionnaire covering:

- Common symptoms
- Recent travel to and from high risk areas or those with established travel advisories
- Close contact with people who are probable or confirmed COVID-19 cases, or others experiencing respiratory symptoms within the last 14 days.

MEPS personnel are to practice social distancing, hand and respiratory hygiene, and take general precautions to prevent and protect from person-to-person transmission of SARS-CoV-2.

Make cloth face coverings available to recruits arriving without cloth face coverings. MEPS personnel should wear cloth face coverings if unable to maintain social distancing. Clinical personnel should wear personal protective equipment (e.g., masks, gowns, gloves, and eye protection) in accordance with clinical guidelines.

Reception

Reception personnel and recruits are to practice social distancing, hand and respiratory hygiene, and take precautions to prevent and protect from person-to-person virus transmission. Post signage indicating appropriate procedures (e.g., social distancing, respiratory hygiene, hand hygiene).

Upon arrival of recruits:

- Perform screening of all recruits for COVID-19 symptoms, including measuring for fever.
- Organize recruits into cocoons (See Establishment and Implementation of Cocoons).
- Quarantine all recruits in their assigned cocoons for 14 days.

The success of COVID-19 risk reduction during the reception phase is dependent on the adherence to the 14-day quarantine period for trainees prior to their being shipped to a training unit.

Once quarantined, perform twice daily screening of all trainees and training cadre for COVID-19 symptoms, including measuring for fever. Cadre should maintain a daily log of each trainee's screening (presence or absence of cough, fever, and shortness of breath) and body temperature, and immediately report symptoms consistent with COVID-19 to public health authority and Reception medical personnel.

Isolate trainees and personnel that develop symptoms consistent with COVID-19. As soon as possible, escort recruits and cadre with symptoms consistent with COVID-19 to the troop medical clinic or medical treatment facility for evaluation. Personnel escorting suspected COVID-19 cases should take precautions to reduce their risk for SARS-CoV-2 infection (e.g., use available personal protective equipment and practice respiratory and hand hygiene). Reception personnel or cadre should notify the medical treatment facility in advance that a trainee or member of the training cadre will be reporting for evaluation.

Reception tasks consistent with maintenance of social distancing best practices may be completed during the quarantine period.

Training Cadre should conduct a daily review of recruits' symptom and temperature logs to confirm absence of symptoms. Cadre should conduct a final review of logs before releasing recruits from quarantine to continue reception in-processing tasks.

ALERT! System. Require personnel (trainees, cadre, and staff) to register in the ALERT! System to record or update emergency contacts at http://alert.csd.disa.mil. This system may be used to provide healthcare providers with emergency contacts should personnel require treatment at a medical treatment facility for COVID-19 or other illness.

Implement administrative actions to limit exposure to the virus in communal toileting and bathing facilities. For example:

- Assign personnel to specific shower, sink, and bathroom stalls when possible.
- Ensure frequent cleaning and disinfection of toileting and bathing facilities with emphasis on surfaces that are frequently touched such as countertops, door handles, faucets, toilet handles, toilet seats, soap dispensers,

and toilet and paper towel dispensers. Disinfect surfaces with an agent that kills viruses. Allow sufficient time for sanitizing agents to work, following manufacturer directions.

- Remind personnel to practice proper hand hygiene on a regular basis.
- Enforce the practice of social distancing to the greatest extent possible.
- Wear a cloth face covering when social distancing is not possible.
- Clean frequently touched surfaces daily (at a minimum). This includes, tables, doorknobs, light switches, countertops, handles, desks, phones, keyboards, etc.

Adhere to other health protection measures such as the guidance provided in Technical Guide 314, Non-vaccine Recommendations to Prevent Acute Infectious Respiratory Disease among U.S. Army Personnel Living in Close Quarters.

Training cadre should adhere to all preventive measures (e.g., social distancing, respiratory hygiene, hand hygiene), avoid direct and indirect contact with potentially SARS-CoV-2-infected persons, including family, friends, and associates, and personally assess their health before reporting for duty. Training cadre experiencing symptoms consistent with COVID-19 should be excused from duty and be medically evaluated.

Employ social distancing and use a cloth face covering when using installation services such as the Army and Air Force Exchange Services, the Commissary, and the dedicated Dining Facility.

TRAINING OPERATIONS

The training phase begins with the trainee's arrival at the training unit from reception and ends at the trainee's change of station. The risk of acute respiratory disease in the trainee population remains high throughout the duration of Basic Combat Training (BCT). The following tactics are to be continued for the duration of training.

Screen all trainees and training cadre for COVID-19 symptoms at least twice daily, at the beginning and ending of the training day.

Escort trainees and cadre with symptoms consistent with COVID-19 to the troop medical clinic or medical treatment facility for evaluation.

- Units are to notify the medical treatment facility in advance that a trainee or member of the training cadre requires evaluation for COVID-19.
- Escorts are to take every precaution to reduce their risk for SARS-CoV-2 infection.
- Units are to notify the public health authority.

Administrative actions to limit exposure from surface contact, e.g. communal toileting, bathing facilities, bunks, lockers, and foot lockers, hand rails, door handles, etc.

- Assign personnel to specific shower, sink, and bathroom stalls when possible.
- Ensure regular cleaning and disinfection of toileting and bathing facilities with emphasis on surfaces that are frequently touched such as countertops, door handles, faucets, toilet handles, toilet seats, soap dispensers, and toilet and paper towel dispensers.
- Clean and disinfect bunks and lockers regularly. Clean surfaces using soap and water daily. Practice disinfection of frequently touched surfaces, especially in common areas. Use commercially available, EPA-registered disinfectants. Use diluted household bleach solutions as a last resort if EPA-registered disinfectants are not available. For soft surfaces such as carpeted floors, rugs, and drapes, remove visible soil with appropriate cleaners, then launder if possible. If not possible to launder, disinfect with an EPA-registered disinfectant.

Refer to **U.S. Army Center for Health Promotion and Preventive Medicine Technical Guide 314** https://phc.amedd.army.mil/PHC%20Resource%20Library/TG314_Non-vaccineRecommendationstoPreventAcuteInfectiousRespiratoryDisease for standards on engineering controls (e.g. ventilation standards, air filtration, temperature, and humidity) for living spaces, including quarantine and isolation facilities.

Remind all of good hand and respiratory hygiene practices. Encourage and empower trainees and cadre to make respectful corrections when failures to adhere to hand and/or respiratory hygiene practices are identified. Empowering individuals to speak up will increase compliance with hand and respiratory hygiene. This should be considered similar to appearance and wear of the uniform. The sooner these behaviors are made habitual and expected, the more these behaviors will become anchored in the Army culture.

To the greatest extent possible, enforce the practice of social distancing. This will minimize the risk of asymptomatic spread.

Wear a cloth face covering when social distancing is not possible. This will minimize transmission of the virus by the individual donning the cloth face covering.

Clean and disinfect frequently touched surfaces daily. This includes, tables, doorknobs, light switches, countertops, handles, desks, phones, keyboards, etc.. Disinfect surfaces with an agent that kills viruses. Allow sufficient time for sanitizing agents to work, following manufacturer directions.

Training cadre and other personnel who may have contact with trainees (e.g., gym employees and barber shop employees) should adhere to all preventive measures (e.g., wearing protective face covering when indicated, social distancing, respiratory hygiene, hand hygiene), avoid direct contact and indirect contact with potentially SARS-CoV-2-infected persons, including family, friends, and associates, and personally assess their health before reporting for duty. Training cadre should be screened daily for COVID-19 symptoms at the start of the training shift. Training cadre and other personnel experiencing symptoms consistent with COVID-19 should not report for duty, report their illness to their supervisor, and seek medical guidance.

Employ social distancing and use a cloth face covering when using installation services such as the Army and Air Force Exchange Services, the Commissary, and the Dining Facility. Further, training cadre must implement administrative controls so that there is no mixing of cocoons or groups at any communal areas. Stagger travel to these locations when possible to limit interaction between cocoons. Cadre should confirm that trainees are not exhibiting symptoms of COVID-19 prior to transporting personnel to any facility.

For training beyond Basic Combat Training, distance learning should be utilized to the maximum extent possible. If not feasible, cocooning remains a preferred strategy for minimizing the risk of COVID-19 transmission. If cocooning is not feasible, restrict class sizes as much as possible, and adhere to social distancing best practices. Avoid large group gatherings such as orientation, graduation, and auditorium-style presentation seminars.

Screen trainee graduates for viral illness symptoms using a questionnaire and body temperature check prior to their travel to their first duty station. Escort trainees with symptoms consistent with COVID-19 to the troop medical clinic or medical treatment facility for evaluation. Notify the medical treatment facility in advance that a trainee will be reporting for evaluation. Any isolation or quarantine period must be completed prior to departure to the gaining unit.

Adhere to other health protection measures, including guidance provided in Technical Guide 314, Non-vaccine Recommendations to Prevent Acute Infectious Respiratory Disease among U.S. Army Personnel Living in Close Quarters.

For knowledge-based training, distance learning should be utilized to the maximum extent possible. If not feasible, cocooning remains a preferred strategy for minimizing the risk of COVID-19 transmission. If cocooning is not feasible, restrict class sizes as much as possible, and adhere to social distancing best practices. Avoid large group gatherings such as orientation, graduation, and auditorium-style presentation seminars.

ESTABLISHMENT AND IMPLEMENTATION OF COCOONS

Cocooning, also known historically as “platooning”, is the practice of isolating groups of healthy Soldiers in as small a number as practically possible to maintain the ability to accomplish training missions. Cocooning is an evidence-based strategy to minimize the risk of respiratory disease transmission in the training environment.

Cocooning is critical for the following reasons:

- SARS-CoV-2 can be introduced into the training population.
- There is evidence of asymptomatic spread of the virus. The close quarters of the training environment can facilitate person-to-person spread.

» Community spread may occur through interactions with civilian and contractor staff, as well as Drill Sergeants and cadre who may be potentially exposed and infected.

» Even when available, serology testing may not guarantee an individual is not contagious.

» The trainee population remains at risk for both COVID-19 and other acute respiratory diseases throughout the duration of training.

Establish trainee cocoons at the initial phase of Reception. If Reception is not a phase of the training process, then training cadre are responsible for screening trainees upon their arrival and for establishing cocoons of no more than thirty Soldiers including cadre. Implement a two-week quarantine period, including daily symptom screening and logging before initiating the formal training mission.

In order for cocooning to be effective:

» Training groups should consist of no more than 30 Soldiers (including cadre).

» Cocoons of trainees are to remain an exclusive group, fully separate from other personnel during the duration of training. In circumstances when cocoons must be co-located, adherence to social distancing is critical.

» Members of each cocoon are to avoid physically socializing or interacting with anyone who is not a member of their cocoon.

» Each cocoon should have one individual identified to maintain accountability of cocoon members during the course of training.

» Screen all trainees and training cadre for COVID-19 symptoms at least twice daily, at the beginning and ending of the training day.

» Separate Soldiers reporting or showing symptoms consistent with COVID-19 from others, and escort them for medical evaluation. Ensure symptomatic Soldiers wear a cloth face covering (or, preferably, a face mask if available). The cadre should notify the troop medical clinic or medical treatment facility of a suspected coronavirus case.

Probable or confirmed cases of COVID-19 are to follow isolation guidance established by the supporting public health authority. The public health authority will determine if a case investigation and contact tracing investigation are needed. Whether or not to quarantine other personnel will be predicated on the findings of these investigations. Thus, it is critical to identify symptoms early in order to limit other Soldiers' exposure. The supporting public health authority will provide guidance regarding the need to quarantine additional personnel.

ASSAY-BASED TESTING FOR SARS-COV-2 INFECTION AND IMMUNITY

Transmission of SARS-CoV-2 by asymptomatic and pre-symptomatic individuals poses challenges for disease control in training environments. According to the CDC, the onset and duration of SARS-CoV-2 shedding and the period of infectiousness for COVID-19 are currently unknown. It is possible that SARS-CoV-2 RNA may be detectable in upper or lower respiratory tract specimens for weeks after illness onset; however, detection of viral RNA material does not necessarily mean that infectious virus is present. Currently where available, real-time, reverse-transcription polymerase chain reaction (rRT-PCR) assays to quantify the presence of SARS-CoV-2 genes, most commonly in a respiratory sample, are being used to confirm SARS-CoV-2 infection among symptomatic individuals. The probability that these molecular tests indicate that non-infected individuals are virus free (specificity) is high, though their probability of determining infected individuals to be positive (sensitivity) is not well documented. The sensitivity is estimated to be less than 90%, and dependent on the assay used, sample procurement methods, and the stage of an individual's infection/illness. The U.S. Army Public Health Center and the Food and Drug Administration Emergency Use Authorizations recommends use of confirmatory real-time, reverse-transcription polymerase chain reaction assay-based testing of symptomatic individuals in training environments in accordance with Centers for Disease Control and Prevention guidelines. The Food and Drug Administration maintains a list of real-time, reverse-transcription polymerase chain reaction tests approved under emergency use authorization (https://www.fda.gov/medical-devices/emergency-situations-medical-devices/emergency-use-authorizations#covid19ivd).

Population screening or SARS-CoV-2 surveillance using rt-PCR tests is becoming increasingly common; however, proper interpretation depends on acknowledging several factors:

» The number of false negatives is unacceptably high. These classification errors are due, at least in part, to limitations in the sensitivity of the test in real-world applications (e.g., the viral load of an infected individual may

be below the test's lower limit of detection (LOD) and in the specimen collection procedures (e.g., the sample may not be collected correctly).

- Such screening provides only a "snapshot" of infection status; non-immune individuals that are uninfected on the day they were tested may become infected – and therefore infectious – at any time after the test was administered.
- In populations where the prevalence of active infection is low, a high proportion of positive tests may be false-positives (the test has low positive predictive value).

Use of a serologic (antibody) assay to identify infectious individuals is not currently recommended due to the window of seronegativity (the period of time during which infected individuals have not generated a detectable level of antibodies, estimated to be up to 14 days SARS-CoV-2 antibodies) and is not a replacement for quarantine procedures. Negative serologic results do not rule out SARS-CoV-2 infection.

Once developed and widely available, serologic testing for presence of antibodies to SARS-CoV-2 could be used to screen for (potentially asymptomatic) individuals who have developed immunity to SARS-CoV-2. However, it is unknown whether asymptomatic infections generate a protective immune response. Also unknown is the period of time those who have been infected and have developed antibodies specific to SARS-CoV-2 will be protected against subsequent infection or development of severe COVID-19. Moreover, the effectiveness of such a screening program would be dependent on the performance characteristics of the test (i.e., sensitivity, specificity), the prevalence of SARS-CoV-2 in the population, and the degree to which test positivity predicts protection from re-infection. The Food and Drug Administration maintains a list of serological tests approved under emergency use authorization (https://www.fda.gov/medical-devices/emergency-situations-medical-devices/emergency-use-authorizations#covid19ivd). Immunoglobulin M (IgM) antibodies to SARS-CoV-2 are generally detectable in blood several days after initial infection, and likely for at least 45 days after infection, although levels over the course of infection are not well characterized. Immunoglobulin G (IgG) antibodies to SARS-CoV-2 become detectable later following infection. If used as part of a trainee screening program, serologic testing is recommended only after at least 14 days post exposure, after enough time has passed for the body to generate an immune response to the virus and produce antibodies.

Over time, identifying immune individuals using serologic (antibody) testing is likely to become a crucial element in reducing the spread of the virus. When available, serologic testing could be utilized, for example, to identify immune Soldiers. Immune Soldiers may convey partial protection to non-immune Soldiers within cocoons by lessening the risk of person-to-person transmission of SARS-CoV-2. Serology testing for antibodies to SARS-CoV-2 is not recommended for use in determining whether new trainees should be quarantined, nor to inform the length of the quarantine period.

CLINICAL TESTING AND REPORTING

Medical personnel will determine if testing is indicated in any Soldier evaluated at a troop medical clinic or medical treatment facility.

If a trainee is evaluated and diagnosed as a probable or confirmed COVID-19 case, the trainee will either be admitted to an inpatient facility for additional treatment or ordered to isolation status at an isolation facility. The clinic staff will notify public health/preventive medicine immediately of the probable or confirmed case in order to complete case investigation and contact tracing.

COVID-19 is a reportable medical event. Clinic or public health personnel report rt-PCR lab-confirmed cases of COVID-19 to the Disease Reporting System internet in accordance with the Armed Forces Reportable Medical Events Guidelines and Case Definitions.

ASSESSING BODY TEMPERATURE IN SCREENING FOR COVID-19

Asking individuals about a fever as well as other COVID-19 symptoms is currently the most appropriate screening practice for COVID-19.

Objective assessments of body temperature using oral thermometers (self-administered or by a screener) are ineffective for screening purposes for the following reasons:

- Fever is not a common early finding in COVID-19 cases, especially in younger and healthier populations.

- The symptom of fever may wax and wane during the day.
- A fever may not be detected by a thermometer if the individual being screened took a fever-suppressing medication.
- Fever is absent in all asymptomatic cases by definition.
- The absence of fever by objective temperature measurement may result in a false sense of security among both the individual and the screener.

The use of infrared (IR) thermometers have additional disadvantages including relative inaccuracy and additional training for their users. Furthermore, their no-touch functionality still requires close proximity (well within six feet) to obtain a reading.

Consequently, personnel screening with IR (or oral) thermometers must use appropriate personal protective equipment (such as gloves and face masks) and maintain hand and respiratory hygiene best practices. Similarly for the reasons stated above, thermal scanners/cameras are not effective for mass screening of people for fever.

To summarize, COVID-19 cases in the trainee population are often afebrile. A normal temperature assessed objectively by a thermometer or thermal scanner/camera cannot rule out SARS-CoV-2 infection.

ISOLATION GUIDANCE

A trainee displaying symptoms of COVID-19 should be completely separated from their group and evaluated by a medical provider immediately.

Trainees displaying symptoms must wear a surgical mask (not a cloth face covering) to more effectively reduce dispersion of droplets from coughing in transit to and while awaiting a medical assessment, and while returning to the isolation facility or area.

If determined to be a probable or confirmed case of COVID-19, the trainee will either be ordered to a designated isolation facility or admitted to the medical treatment facility for inpatient care. The attending healthcare provider is to notify the installation public health authority of the probable or confirmed case of COVID-19 as well as the isolation status.

All isolated personnel are to follow respiratory and hand hygiene practices. Additional information on hand washing to stop the spread of germs can be found here: https://ephc.amedd.army.mil/HIPECatalog/viewItem.aspx?id=759.

All personnel not on isolation status entering a designated isolation facility/area must wear personal protective equipment to include a surgical mask, disposable gloves, and eye protection. The facility must employ aggressive disinfection practices to minimize the potential of surface-to-person transmission. Isolation facilities should have designated “clean” areas for toileting and changing personal protective equipment.

- The unit must provide laundry and food services for isolated trainees.
- Items may be laundered using normal laundry detergent according to washing machine instructions and dried thoroughly using warmest temperature recommended on clothing labels.
- Consider the use of disposable plates and utensils for meals.
- Ensure common areas are routinely cleaned and disinfected.

Ensure that any vehicles used to transport personnel to and from a designated isolation facility are cleaned and disinfected.

Living Quarters

Shared spaces should have good air flow including air conditioning or opened windows, weather permitting.

All frequently touched surfaces such as counters, tabletops, doorknobs, bathroom fixtures, toilets, phones, keyboards, tablets and bedside tables should be cleaned and disinfected daily.

Disinfection

Disinfect surfaces with an agent that kills viruses. Allow sufficient time for sanitizing agents to work, following manufacturer directions. Environmental Protection Agency registered household disinfectants are highly recommended: https://www.epa.gov/pesticide-registration/list-n-disinfectants-use-against-sars-cov-2.

Waste

Gloves, gowns, and masks used within the isolation facility are to be treated as regular waste.

Health Observation

Isolated trainees must take their temperature twice a day. Public health/preventive medicine personnel will track all personnel on isolation status to include at least twice daily temperature and symptoms. The isolation facility must be equipped with telephones and internet capability to facilitate this communication. Isolated individuals should monitor and report any change in their own symptoms. If the isolated person's symptoms worsen, the attending personnel must understand local procedures for contacting the nearest medical treatment facility for instructions and assistance.

Discontinuing Isolation

The decision to remove an individual from isolation is made by the public health authority and, when applicable, in coordination with the healthcare provider managing care.

Release from isolation may be either symptom-based (for symptomatic cases) or time-based (for asymptomatic cases). A symptom or time-based strategy is typically employed for individuals on isolation status who are medically stable outside of a hospital setting (e.g. residing in a designated isolation facility). Release criteria using the symptom- or time-based strategies include all of the following:

- At least 10 days have passed since symptom onset (if symptomatic) or 10 days have passed since the date of the first positive RT-PCR test for SARS-CoV-2 RNA (if asymptomatic and tested) AND
- At least 24 hours have passed since resolution of fever without the use of fever-reducing medications (e.g., acetaminophen, ibuprofen) AND
- Other symptoms have improved/resolved (e.g., cough, shortness of breath, fatigue, muscle/body aches, headache, new loss of taste or smell)

Note: The test-based strategy is no longer recommended. As detection of viral RNA can persist for weeks following recovery and does not indicate presence of live virus (i.e., infectiousness), the test-based strategy can result in prolonged, unnecessary isolation of non-infectious persons.

QUARANTINE GUIDANCE

A trainee who has been in close contact with a probable or confirmed case of COVID-19 should be moved to a designated quarantine area as soon as possible. Consider quarantining the entire cocoon in place if all members meet the criteria for being close contacts of the probable or confirmed COVID-19 case.

- Trainees should wear a cloth face covering when social distancing is not possible and in accordance with Authority d, DODM Force Health Protection Guidance (Supplement 7) - Department of Defense Guidance for the Use of Cloth Face Coverings, Personal Protective Equipment, and Non-Pharmaceutical Interventions During the Coronavirus Disease 2019 Pandemic, dated 08 April 2020.
- Installation public health/preventive medicine should be notified of the quarantine status for tracking purposes.
- Any personnel not on quarantine status entering a designated quarantine facility should wear a cloth face covering.
- Quarantined trainees should wash their hands often with soap and water for at least 20 seconds or an alcohol-based hand sanitizer.
- Hand sanitizer should cover all surfaces of hands. Hands should be rubbed together until they are dry. Soap and water are preferred if hands are visibly dirty.
- Additional information on hand washing to stop the spread of germs can be found here: https://ephc.amedd.army.mil/HIPECatalog/viewItem.aspx?id=759.

Laundry/Food

The unit must provide laundry services for quarantined trainees.

- » Items may be laundered using normal laundry detergent according to washing machine instructions and dried thoroughly using warmest temperature recommended on clothing labels.
- » Consider the use of disposable plates and utensils for meals.

Living Quarters and Storage

Shared spaces should have good air flow including air conditioning or opened windows, weather permitting.

- » All frequently touched surfaces such as counters, tabletops, doorknobs, bathroom fixtures, toilets, phones, keyboards, tablets and bedside tables should be cleaned daily.

Disinfection

Disinfect surfaces with an agent that kills viruses. Allow sufficient time for sanitizing agents to work, following manufacturer directions. Environmental Protection Agency registered household disinfectants are highly recommended: https://www.epa.gov/pesticide-registration/list-n-disinfectants-use-against-sars-cov-2.

Waste

Gloves, gowns, and masks used within the isolation facility will be treated as regular waste.

Health Observation

Quarantined trainees must take their temperature twice a day. Public health/preventive medicine personnel will track all personnel on quarantine status to include temperature and any development of symptoms.

- » The quarantine facility must be equipped with telephones and internet capability to facilitate this communication.
- » Quarantined individuals should monitor and report any change in their own symptoms. If symptoms consistent with COVID-19 develop, individuals should notify leadership and public health/preventive medicine personnel immediately, who will coordinate a medical evaluation.

Discontinuing Quarantine

- » The incubation period for COVID-19 infection is up to 14 days. Individuals who do not develop symptoms over 14 days are presumed to be uninfected and may discontinue quarantine.
- » Public health/preventive medicine will track all quarantined individuals and provide notice of their release from quarantine status.
- » Currently, no testing protocol is available that can shorten the 14-day duration of quarantine necessary to maximize force protection.

GLOSSARY

Asymptomatic transmission. Asymptomatic transmission is spreading of the virus by contagious persons who do not have signs or symptoms of infection to others. The amount of asymptomatic transmission of SARS-CoV-2 occurring is not well quantified.

Cloth face coverings. The Centers for Disease Control and Prevention recommends wearing cloth face coverings in settings where other social distancing measures are difficult to maintain, especially in areas of significant community-based transmission. Cloth face coverings are not surgical masks or N-95 filtering facepiece respirators; these forms of personal protective equipment are prioritized for use in a healthcare setting.

Cocooning. Cocooning, also known historically as "platooning", is the practice of isolating groups of healthy Soldiers in as small a number as practically possible (e.g., less than 30 Soldiers) to minimize respiratory disease transmission.

Fever. Fever is a higher-than-normal body temperature. Normal human body temperature can vary from person to person but is usually about 98.6° F. The Centers for Disease Control and Prevention considers a body temperature greater than or equal to 100.4°F a fever. While an actual temperature reading is the best way to determine whether an individual has a fever, the Centers for Disease Control and Prevention also considers a fever to be present when a person feels hot to the touch or has reported feeling feverish (possibly with chills).

Hand hygiene. Hand hygiene refers to multiple behaviors intended to keep hands clean in order to prevent transmission of disease.

1. Fundamental to proper hand hygiene is hand washing with soap and water for at least 20 seconds, especially after touching communal surfaces, and after coughing and sneezing. Use of hand sanitizer containing a minimum of 60% alcohol may be used as a substitute for hand washing if hand washing stations or facilities with soap and water are not available.
2. Hand hygiene also involves minimizing the touching of the eyes, nose, and mouth, and being cognizant to wash hands afterwards if touching is necessary.
3. Hand hygiene also includes reminding others to maintain hand hygiene.

Herd immunity, aka "Community immunity". A situation in which a sufficient proportion of a population is immune to an infectious disease (through vaccination and/or prior illness) to make its spread from person to person unlikely. Individuals at risk (e.g., not vaccinated, newborns, immunocompromised individuals, and those with chronic illnesses) are offered some protection because the disease has little opportunity to spread within the community.

Immunity. Immunity is protection from an infectious disease. If one is immune to a disease, one can be exposed to it without becoming sick.

Incubation period. The incubation period is the time between exposure to an infectious agent (e.g., a virus) and the first appearance of symptoms associated with the infection. Based on the current literature, the incubation period for SARS-CoV-2 ranges from 2 to 14 days, and is usually 4 to 5 days. One study reported that 97.5% of persons with COVID-19 who develop symptoms will do so within 11.5 days of SARS-CoV-2 infection.

Infectious. Infectious (or contagious) describes individuals who are capable of transmitting a virus to others. Individuals may be infectious whether or not they are symptomatic; however, transmission most often occurs from symptomatic individuals.

Isolation. Isolation is used to separate sick people from healthy people with the goal of minimizing further spread of the virus. People who are in isolation should remain in a dedicated isolation site, and if possible, use facilities (e.g., latrines, bunks, etc.) that are not also being used by non-immune, non-infected individuals. Individuals experiencing any of the following warning signs should contact their health provider immediately: trouble breathing, persistent pain or pressure in the chest, new confusion or inability to arouse, bluish lips or face.

Outbreak, epidemic, and cluster. Epidemic refers to an increase, often sudden, in the number of cases of a disease above what is normally expected in that population in that area. Outbreak carries the same definition of epidemic, but is often used for a more limited geographic area. Cluster refers to an aggregation of cases in place and time that are suspected to be greater than the number expected, even though the expected number may not be known.

Pandemic. Pandemic refers to an epidemic that has spread over several countries or continents, usually affecting a large number of people.

Personal protective equipment (PPE). Personal protective equipment is clothing, goggles, masks, or other garments or equipment designed to protect the wearer's body from injury or infection. Cloth face coverings, although not PPE, may have some role in reducing the spread of the virus from the wearer to others.

Pre-symptomatic transmission. Person-to-person spread of the virus by an individual before they have COVID-19 symptoms. Persons infected with SARS-CoV-2 can be contagious even if they do not have COVID-19 symptoms. Pre-symptomatic transmission may occur one to three days before the infected person develops symptoms.

Quarantine. Quarantine is used to keep someone who might have been exposed to an infectious virus away from others. Someone in self-quarantine stays separated from others, and they limit movement outside of a dedicated quarantine space. A person may have been exposed to the virus without knowing it (for example, when traveling or out in the community), or they could have the virus without feeling symptoms. Quarantine helps limit further spread of COVID-19.

Respiratory hygiene. Respiratory hygiene and cough etiquette are terms used to describe personal infection prevention measures to decrease the transmission of respiratory illness (e.g., influenza, cold viruses, and COVID-19). Elements of respiratory hygiene/cough etiquette include:

1. Education of personnel regarding how respiratory infections are transmitted and respiratory illness can be prevented. This includes asking personnel to stay home if they are sick.
2. Use of signage with instructions and pictures about how to cover your cough and wash your hands.
3. Availability and use of disposable tissues when coughing and sneezing, and reminders to dispose of used tissues properly.
4. Use of a cloth face covering or mask (as for persons exhibiting respiratory symptoms). Stressing hand hygiene (frequent hand washing with warm soap and water, and proper use of hand sanitizer).
5. Covering one's mouth and nose with a tissue when coughing and/or sneezing, or coughing and/or sneezing into one's upper sleeve, not into one's hands. Wash or sanitize hands after coughing or sneezing.

Screening. Screening is the rapid assessment and sorting of individuals into relatively higher or lower risk groups. Currently, the most effective COVID-19 screen consists of a questionnaire of symptom status and personal contact history relevant to patterns of virus transmission. A body temperature check for presence of fever may also be included.

Social distancing. Social distancing, also called "physical distancing," means keeping space between yourself and other people. To practice social or physical distancing, stay at least 6 feet (2 meters) from others, stay out of crowded places, and avoid gatherings (e.g., groups larger than a cocoon).

Susceptible. Susceptibility refers to the ability to become infected by the virus. Individuals who are not immune to the virus are susceptible to SARS-CoV-2 infection. More generally, susceptible refers to being likely or liable to be harmed by the virus. Individuals susceptible to more severe COVID-19 illness may include newborns, the elderly, immunocompromised individuals including those whose immune system is weakened under high-stress environments, and those with other underlying chronic illnesses. It is not yet known whether individuals who have recovered from infection with SARS-CoV-2 will be susceptible to reinfection, or when.

Appendix: Resources for the Field

Stand-alone versions of the documents contained in this appendix can be downloaded or ordered from The U.S. Army Public Health Center Product Catalog: https://ephc.amedd.army.mil/HIPECatalog/searchResults.aspx?hotlist=88

TG314 Non-vaccine Recommendations to Prevent Acute Infectious Respiratory Disease among U.S. Army Personnel Living in Close Quarters (Coronavirus/COVID-19) https://ephc.amedd.army.mil/HIPECatalog/viewItem.aspx?id=1782

COVID-19: STOP Clinic Placard - language-English (Coronavirus): https://ephc.amedd.army.mil/HIPECatalog/viewItem.aspx?id=1781 COVID-19: STOP Clinic Placard - language-Spanish (Coronavirus): https://ephc.amedd.army.mil/HIPECatalog/viewItem.aspx?id=1783

COVID-19: Preventive: Wash Your Hands Poster (CP-077-1117): https://ephc.amedd.army.mil/HIPECatalog/viewItem.aspx?id=386

COVID-19: SUSTAINING OPERATIONS: Face Coverings (TA-524-0420): https://ephc.amedd.army.mil/HIPECatalog/viewItem.aspx?id=1802

COVID-19 | SUSTAINING OPERATIONS: Important Information about Your Face Covering (TA-550-0620): https://ephc.amedd.army.mil/HIPECatalog/viewItem.aspx?id=1837

COVID-19: Face Coverings, Masks, & Respirators: Know the Difference and When to Use Them (TA-526-0420): https://ephc.amedd.army.mil/HIPECatalog/viewItem.aspx?id=1812

COVID-19: Army Public Health Resources Card (Coronavirus) (TA-510-0320): https://ephc.amedd.army.mil/HIPECatalog/viewItem.aspx?id=1780

COVID-19: Prevent the Spread, Protect Yourself and Your Family (Coronavirus) (TA-505-0320): https://ephc.amedd.army.mil/HIPECatalog/viewItem.aspx?id=1771

Preventive: Barracks Hygiene and Cleanliness Poster (TA-394-1216): https://ephc.amedd.army.mil/HIPECatalog/viewItem.aspx?id=814

COVID-19: Plan Ahead and Prepare: Protect Yourself and Your Family (TA-507-0320): https://ephc.amedd.army.mil/HIPECatalog/viewItem.aspx?id=1777

COVID-19 | SUSTAINING OPERATIONS: Social Distancing (TA-516-MAR20): https://ephc.amedd.army.mil/HIPECatalog/viewItem.aspx?id=1795

COVID-19: Testing & Management Process (for Providers) (TA-517-0320): https://ephc.amedd.army.mil/HIPECatalog/viewItem.aspx?id=1794

COVID-19: Personal Protective Equipment (PPE) Guidance for Healthcare Providers (TA-520-0320): https://ephc.amedd.army.mil/HIPECatalog/viewItem.aspx?id=1798

COVID-19: Guidance for Quarantine and Isolation Facilities (TA-523-0420): https://ephc.amedd.army.mil/HIPECatalog/viewItem.aspx?id=1800

The following would need to be adapted for use in training settings:

COVID-19: 10 Tips for At-Home Quarantine (911 emergency phone number) (TA-509-0320): https://ephc.amedd.army.mil/HIPECatalog/viewItem.aspx?id=1779

COVID-19: 10 Tips for At-Home Quarantine (fillable emergency phone number) (TA-509-0320-Fillable): https://ephc.amedd.army.mil/HIPECatalog/viewItem.aspx?id=1792

COVID-19: Guidance for Discontinuing Isolation in a Non-Healthcare Setting (TA-521-MAY20): https://ephc.amedd.army.mil/HIPECatalog/viewItem.aspx?id=1801

COVID-19: Behavioral and Social Health Tips to Master Stress (TA-512-MAR20): https://ephc.amedd.army.mil/HIPECatalog/viewItem.aspx?id=1787

Preventive: Cleaning, Sanitizing and Disinfecting Surfaces Poster (TA-375-0616): https://ephc.amedd.army.mil/HIPECatalog/viewItem.aspx?id=785

COVID-19: Cleaning and Disinfection (TA-511-0320): https://ephc.amedd.army.mil/HIPECatalog/viewItem.aspx?id=1788

COVID-19: Guidance for Military Treatment Facility Access Points (TA-522-0420): https://ephc.amedd.army.mil/HIPECatalog/viewItem.aspx?id=1803

Not able to download without a CAC:

COVID-19: (CAC Required) Maintain Readiness While Slowing the Spread | Recommendations for Commanders and Leaders: https://ephc.amedd.army.mil/HIPECatalog/viewItem.aspx?id=1804

Appendix: Authority

Department of Defense Directive 6490.02, Comprehensive Health Surveillance, dated 8 February 2012.

Department of Defense Instruction 6200.03, Public Health Emergency Management (PHEM) Within the Department of Defense, dated 28 March 2019.

General Administrative Guidance (GENADMIN) on the 2019 Novel (New) Coronavirus (NCoV), dated 4 February 2020.

Department of Defense Memorandum, Force Health Protection Guidance (Supplement 7) - Department of Defense Guidance for the Use of Cloth Face Coverings, personal protective equipment, and Non-Pharmaceutical Interventions During the Coronavirus Disease 2019 Pandemic, dated 08 April 2020.

Headquarters, Department of the Army Executive Order 144-20 Army Wide Preparedness and Response to Coronavirus Outbreak, dated February 2020.

Headquarters, Department of the Army Executive Order 130-20 Reporting of Army Personnel Returning from China During the 2019 Novel Coronavirus, dated 23 February 2020.

Office of The Surgeon General Policy Memorandum 20-007, Acute Respiratory Disease and Group A Beta-Hemolytic Streptococcus Prevention Program, dated 20 Feb 2020.

Headquarters, U.S. Army Medical Command Operation Order 20-21 (Military Treatment Facility Preparedness and Response to Coronavirus (COVID-19) Outbreak) – U.S. Army Medical Command, dated February 2020.

Headquarters, U.S. Army Medical Command Operation Order 20-20, Military Treatment Facility Preparedness and Response to Coronavirus (COVID-19) Outbreak, U.S. Army Medical Command, dated 21 February 2020.

Headquarters, U.S. Army Medical Command Operation Order 20-24, MEDCOM Response to Coronavirus (COVID-19) Outbreak – USAMEDCOM, dated April 2020.

Department of Army Pamphlet 40-11, Preventive Medicine, dated 19 October 2009.

Army Regulation 40-5, Preventive Medicine, Rapid Action Revision (RAR), dated 19 October 2009.

Appendix: References

Armed Forces Reportable Medical Events Guidelines and Case Definitions, Armed Forces Health Surveillance Branch, 1 January 2017.

Coronavirus disease (COVID-19) Pandemic. World Health Organization, https://www.who.int/emergencies/diseases/novel-coronavirus-2019

Coronavirus (COVID-19). Centers for Disease Control and Prevention, 09 April 2020, https://www.cdc.gov/coronavirus/2019-ncov/index.html

Coronavirus (COVID-19) Update: Serological Tests, U.S. Food and Drug Administration, 10 April 2020, https://www.fda.gov/emergency-preparedness-and-response/counterterrorism-and-emerging-threats/coronavirus-disease-2019-covid-19

Gaydos, J. C., et al. 2006. “Swine influenza a outbreak, Fort Dix, New Jersey, 1976.” Emerging infectious diseases 12, no. 1:23-28.

Lee, S. E., A. Eick, and P. Ciminera. 2008. “Respiratory disease in Army recruits: surveillance program overview, 1995-2006.” American Journal of Preventive Medicine 34, no. 5:389-395.

2019 Novel Coronavirus (COVID-19). U.S. Army Public Health Center, 06 April 2020, https://phc.amedd.army.mil/topics/campaigns/covid19/Pages/default.aspx

Sanchez, J. L., et al. 2015. “Respiratory Infections in the U.S. Military: Recent Experience and Control.” Clinical microbiology reviews 28, no. 3: 743-800.

U.S. Army Center for Health Promotion and Preventive Medicine TG 314: Non-vaccine Recommendations to Prevent Acute Infectious Respiratory Disease among U.S. Army Personnel Living in Close Quarters, dated May 2007, https://phc.amedd.army.mil/PHC%20Resource%20Library/TG314_Non-vaccineRecommendationstoPreventAcuteInfectiousRespiratoryDisease.pdf

Appendix: Acute Respiratory Disease Surveillance Program

The Acute Respiratory Disease (ARD) Surveillance Program identifies trainees with a fever and respiratory symptoms who go to sick call and receive a limited duty profile. The program has been in place at Army Initial Entry Training installations since 1966 and serves as a means of identifying and suppressing ARD outbreaks in the trainee population.

The ARD Surveillance Program identifies ARD cases in BCT trainees meeting the following criteria:

1. Fever (≥ 100.4° F)
2. Respiratory symptoms
3. Seeking care from the troop medical clinic and being given a limited duty profile.

Trainee respiratory samples are obtained by healthcare providers and sent to Naval Health Research Center or the U.S. Air Force School of Aerospace Medicine. The respiratory samples and are tested for multiple causes of acute respiratory disease including influenza, adenovirus, rhinovirus, and four types of coronavirus. While SARS-CoV-2 is not currently included in routine acute respiratory disease surveillance, the Acute Respiratory Disease Surveillance Program can identify increases in all-cause acute respiratory disease activity in the trainee population. The Acute Respiratory Disease Surveillance Program Coordinators at each BCT installation review case data and alert U.S. Army Public Health Center when notable clusters of infection are detected. The Acute Respiratory Disease Surveillance Program Coordinators can detect problems in near real-time and work closely with the public health authority to suppress Acute Respiratory Disease outbreaks.

SARS-CoV-2 is not specifically tested as a component of the Acute Respiratory Disease Surveillance Program at this time. However, if SARS-CoV-2 were active and spreading in our trainee population, an increased upward trend in febrile acute respiratory disease rates would be seen. This program and the weekly reports generated can alert TRADOC leadership to acute respiratory disease activity in the trainee population.

Acute respiratory disease activity should be monitored continuously by program coordinators at the installation. Factors that indicate a possible acute respiratory disease outbreak include, but are not limited to:

1. A marked increase (e.g. a 50% increase) in acute respiratory disease frequency for two consecutive weeks.
2. Acute respiratory disease one week cumulative incidence > 1.5% for two consecutive weeks.
3. Evidence of SARS-CoV-2 transmission between cocoons.
4. Systemic violations of social distancing, hygiene, and/or cleaning procedures.

The public health authority will determine whether an outbreak response is necessary. If so, the public health authority will make a recommendation(s) to leaders to prevent further spread of the acute respiratory disease e.g. halting training (either for an entire cocoon or multiple cocoons), a stand down to review prevention procedures, etc. Similarly, these factors may guide a decision to resume normal training operations.

Acute Respiratory Disease Surveillance Program weekly reports are available here: https://phc.amedd.army.mil/news/Pages/PublicationDetails.aspx?type=APHC%20ARDS%20Report

The Army Public Health Roadmap to COVID-19 Risk Reduction

COVID 19 CORONAVIRUS DISEASE

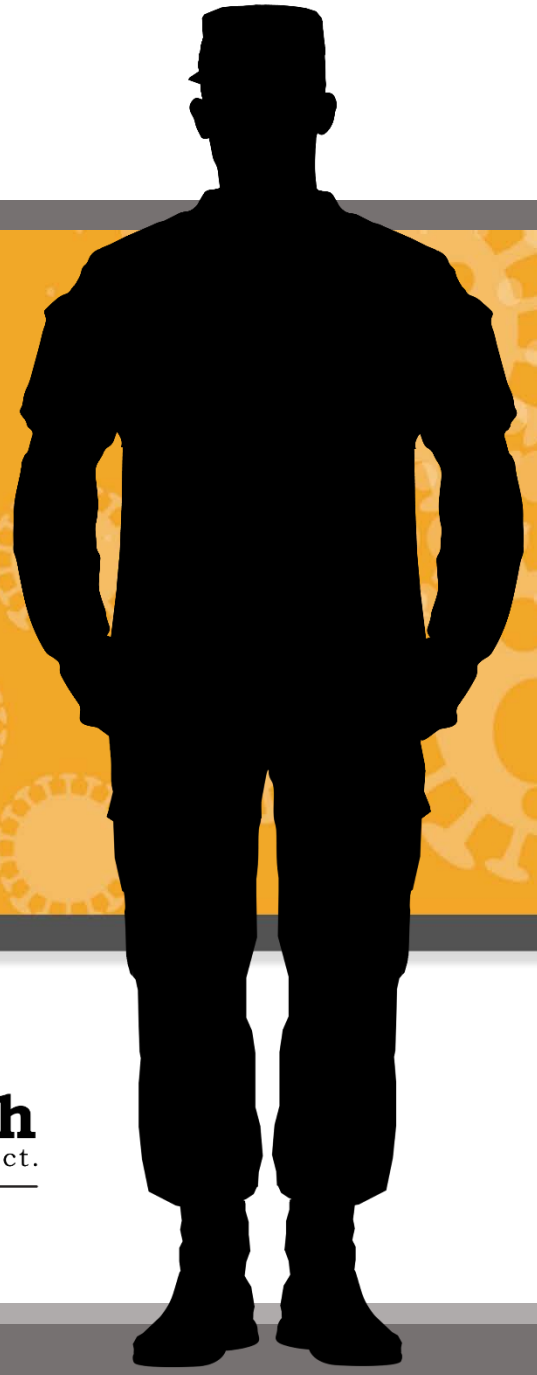
U.S.ARMY

Public Health
Prevent. Promote. Protect.
Army Public Health

Approved for public release; distribution unlimited.

Purpose

To provide a public health approach to mitigate the impact of COVID-19 in Army formations.



COVID 19 CORONAVIRUS DISEASE

U.S.ARMY

Public Health
Prevent. Promote. Protect.
Army Public Health

Background

- Coronavirus Disease (COVID-19) is a threat to military formations and Army medical readiness
- The virus that causes COVID-19 is highly contagious and primarily transmitted person-to-person by respiratory droplets
- Military training populations are at especially high risk for acute respiratory diseases
- Prevention, Detection, and Response tactics can mitigate the impact of COVID-19 in Army formations

The Public Health Roadmap

COVID 19 CORONAVIRUS DISEASE | U.S.ARMY | Public Health Prevent. Promote. Protect. Army Public Health

PREVENT

- **Stop spread of the virus**
  - Maintain social distance
  - Wash hands
  - Practice respiratory hygiene
  - Clean and disinfect surfaces
  - Quarantine at select entry points
  - Cocoon in small groups
  - Screen external personnel with access to cocoons

DETECT

- **Characterize individuals at risk**
- **Identify infections early**
  - Screen for symptoms
  - Identify those at high risk for severe disease
  - Test for virus (infection)
  - Test for antibodies (immunity)

RESPOND

- **Take rapid actions to limit impact**
  - Isolate suspected/confirmed cases
  - Conduct contact tracing/testing
  - Quarantine and actively monitor close contacts
  - Provide appropriate clinical care

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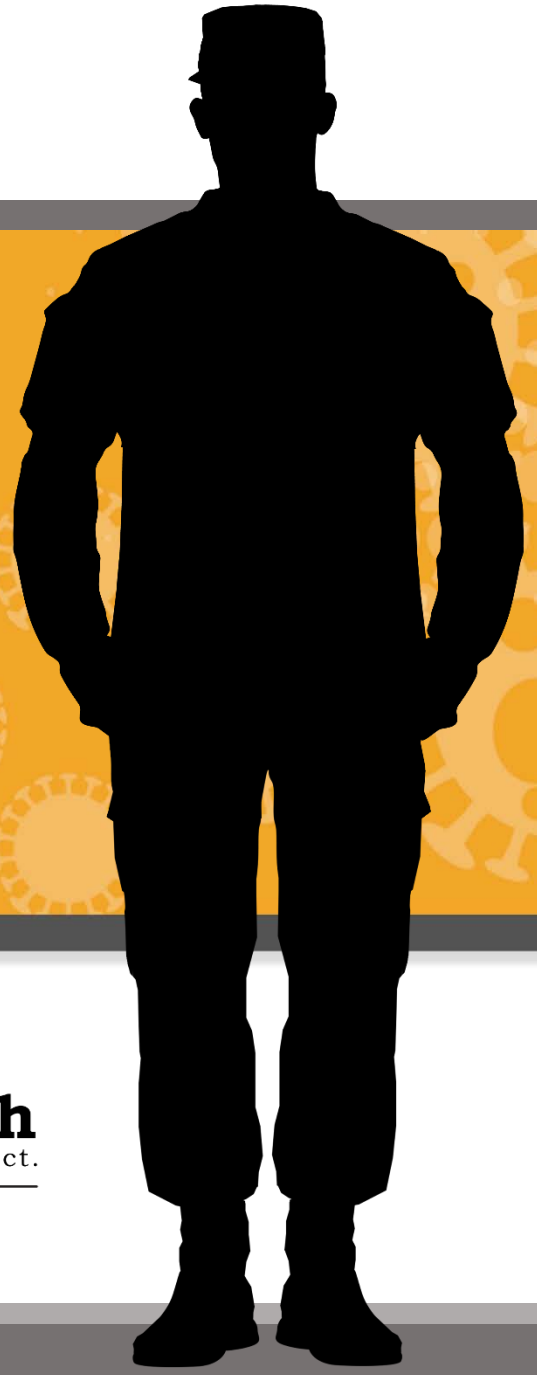
Backup Slides



COVID 19 CORONAVIRUS DISEASE

U.S.ARMY

Public Health
Prevent. Promote. Protect.
Army Public Health

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Public Health Roadmap for Recruiting Stations

COVID 19 CORONAVIRUS DISEASE | U.S.ARMY | Public Health Prevent. Promote. Protect. Army Public Health

PREVENT

- **Practice social distancing**
  - Maintain 6 feet between individuals
- **Enforce hand hygiene and respiratory etiquette**
  - Use virtual (remote) platforms to communicate with potential recruits whenever possible
  - Display signage directing persons with COVID-19 symptoms to not enter recruiting station
  - Wear cloth face coverings
  - Wash or sanitize hands well and often
  - Cough and sneeze into elbow
- **Conduct regular cleaning**
  - Disinfect all common surfaces at least daily

DETECT

- **Screen recruiters for:**
  - Symptoms
  - Close contact(s) with COVID-19 case(s) in past 14 days
- **Screen recruits for:**
  - Symptoms
  - Close contact(s) with COVID-19 case(s) in past 14 days

RESPOND

- **Isolate symptomatic recruiters**
- **Quarantine recruiters who are close contacts with COVID-19 cases**
- **Direct symptomatic recruits to their healthcare provider**
- **Return recruits who are close contacts to quarantine**

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Public Health Approach at Military Entrance Processing Station (MEPS)

COVID 19 CORONAVIRUS DISEASE | U.S.ARMY | Public Health Prevent. Promote. Protect. Army Public Health

PREVENT

- **Practice social distancing**
  - Maintain 6 feet between individuals
- **Enforce hand hygiene and respiratory etiquette**
  - Display signage directing persons with COVID-19 symptoms to not enter MEPS
  - Wear cloth face coverings (recruits and MEPS admin staff)
  - Wear surgical masks (MEPS clinical staff)
  - Wash or sanitize hands well and often
  - Cough and sneeze into elbow
- **Conduct regular cleaning**
  - Disinfect all common surfaces at least daily

DETECT

- **Screen MEPS personnel for:**
  - Symptoms
  - Close contact(s) with COVID-19 case(s) in past 14 days
- **Screen recruits for:**
  - Symptoms
  - Close contact(s) with COVID-19 case(s) in past 14 days

RESPOND

- **Isolate symptomatic MEPS personnel**
- **Quarantine MEPS personnel who are close contacts of COVID-19 cases**
- **Direct symptomatic recruits to their healthcare provider**
- **Return recruits who are close contacts to quarantine**

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Public Health Roadmap for Reception

COVID 19 CORONAVIRUS DISEASE | U.S.ARMY | Public Health Prevent. Promote. Protect. Army Public Health

PREVENT

- **Practice social distancing**
  - Maintain 6 feet between individuals
- **Enforce hand hygiene and respiratory etiquette**
  - Wear cloth face coverings (trainees and reception staff)
  - Wash or sanitize hands well and often
  - Cough and sneeze into elbow
- **Conduct regular cleaning**
  - Disinfect all common surfaces at least daily

DETECT

- **Screen trainees for symptoms twice daily**
- **Screen reception staff for symptoms daily (upon arrival for duty)**
- **Test for virus (infection)**
  - Prioritize symptomatic individuals
  - Cannot be used to avoid isolation or quarantine
- **Test for antibodies (immunity)**
  - Employ when available
  - May be used to maximize herd immunity in cocoons

RESPOND

- **Isolate suspected and confirmed cases among trainees and reception staff**
- **Provide appropriate clinical care**
- **Quarantine and actively monitor all incoming trainees for 14 days**
- **Quarantine (i.e., exclude from workplace) reception staff who are close contacts of confirmed cases**
- **Assemble trainees and cadre into cocoons**
  - Conduct training in small groups
  - Minimize contact between cocoons

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Public Health Roadmap for Training

COVID 19 CORONAVIRUS DISEASE | U.S. ARMY | Public Health Prevent. Promote. Protect. Army Public Health

PREVENT

- **Practice social distancing**
  - Maintain 6 feet between individuals
- **Enforce hand hygiene and respiratory etiquette**
  - Wear cloth face coverings (trainees and cadre)
  - Wash or sanitize hands well and often
  - Cough and sneeze into elbow
- **Conduct regular cleaning**
  - Disinfect all common surfaces at least daily
- **Maintain trainees and cadre in cocoons**
  - Conduct training in small groups
  - Minimize contact between cocoons
  - Screen external personnel with access to cocoons

DETECT

- **Screen trainees for symptoms twice daily**
- **Screen cadre for symptoms daily (upon arrival for duty)**
- **Test for virus (infection)**
  - Prioritize symptomatic individuals
  - Cannot be used to avoid isolation or quarantine

RESPOND

- **Isolate suspected and confirmed cases among trainings and cadre**
- **Provide appropriate clinical care**
- **Perform contact tracing/testing**
- **Quarantine and actively monitor trainees and cadre (i.e., exclude from workplace) who are close contacts of confirmed cases**

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COVID-19: Testing for Case Confirmation

Current Standard: Positive molecular test for presence of viral material.

Method: Real-time reverse transcription polymerase chain reaction (rRT-PCR) test for qualitative detection of SARS-CoV-2 nucleic acid.

Sample: Upper or lower respiratory specimens (such as nasopharyngeal or oropharyngeal swabs, sputum, lower respiratory tract aspirates, bronchoalveolar lavage, and nasopharyngeal wash/aspirate or nasal aspirate) collected from suspected cases of COVID-19 by healthcare staff.

Advantages: Highly specific.

Disadvantages: Imperfect sensitivity. Potentially infectious individuals remain unidentified and continue to infect others ("false negatives"). Identification of viral material does not necessarily mean individual is infectious. Does not facilitate distinguishing between non-immune (at risk for SARS-CoV-2 infection) and immune (not at risk for SARS-CoV-2 infection).

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COVID-19: Testing for SARS-CoV-2 Immunity

- Antibody tests are under development (not currently available).
- When available, antibody testing alone cannot be used for making decisions to:
  - Reduce the length of quarantine,
  - Reduce the length of, or release individuals from isolation, or
  - Clear personnel to return to work.
- Antibody testing in conjunction with other community and clinical factors has the potential to inform future decision-making.
- Herd, or community, immunity is not possible until the prevalence of past SARS-CoV-2 infection is high and/or until a vaccine against the virus is implemented.
- Limitations of serological testing for SARS-CoVV-2 antibodies include false negatives and uncertainty regarding long-term immunity.

COVID-19: Testing for SARS-CoV-2 Immunity

	IDENTIFICATION OF PERSONS AT RISK FOR SARS-CoV-2 INFECTION (NON-IMMUNE)	IDENTIFICATION OF PERSONS NOT AT RISK FOR SARS-CoV-2 INFECTION (IMMUNE)
Current Standard	Personnel assumed to be non-immune (susceptible to SARS-CoV-2 infection) if no history of confirmed COVID-19.	Personnel assumed to be immune if they have recovered from a confirmed infection with SARS-CoV-2.
Advantages	Conservative.	Conservative.
Disadvantages	Some immune personnel remain unidentified and are assumed to be at risk of infection.	The duration of immunity following SARS-CoV-2 infection is unknown.
Potential Future Standard	Negative serologic test for presence of antibodies to SARS-CoV-2.	Positive serologic test for presence of antibodies to SARS-CoV-2-specific IgM and IgG..
Method	Enzyme-linked immunosorbent assay (ELISA) for SARS-CoV-2-specific IgM and IgG.	Enzyme-linked immunosorbent assay (ELISA) for SARS-CoV-2-specific IgM and IgG.
Sample	Serum specimen from blood drawn by healthcare staff.	Serum specimen from blood drawn by healthcare staff.
Advantages	Potential use in risk-stratification of personnel.	Potential use in risk-stratification of personnel. Sufficient numbers of immune individuals can provide herd immunity. The proportion of immune individuals required for herd immunity is currently unknown, but is likely 60% or greater.
Disadvantages	Depending on the test characteristics, results may misclassify some individuals.	Depending on the test characteristics, results may misclassify some individuals.

COVID-19 Prevention: Cocooning of Trainees

WHAT?	• Cohort healthy trainees into small groups
WHY?	• Maintain the ability to accomplish training mission during an outbreak • Limit respiratory disease transmission in the training environment
WHO?	• Trainees – 30 or fewer trainees per cocoon • One leader per cocoon to maintain accountability during training
WHERE?	• Environments where trainees interact in proximity to each other
WHEN?	• During times of elevated risk of infectious respiratory disease transmission • Establish cocoons at the final phase of Reception (prior to movement to training units) • Maintain cocoons for the duration of training
HOW?	• Trainees interact only with other members of their cocoon • Physically separate cocoons from each other, to the greatest extent possible • Screen external personnel with access to cocoons • Immediately isolate potential COVID-19 cases and report to installation public health authorities • Identify close contacts of probable or confirmed cases and quarantine them for 14 days

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Acute Respiratory Disease (ARD) Surveillance Program

WHAT?	• Passive surveillance program to identify trainees with communicable ARD who have fever (> 100.4° F) and respiratory symptoms.
WHY?	• To collect training population data to detect early clusters of respiratory disease, use this information to institute measures to minimize person-to-person spread, and mitigate the risk of degrading medical readiness among training formations.
WHO?	• Installation Public Health Department personnel serve as local ARD Surveillance Program Coordinators.
WHERE?	• The trainee populations at Ft Benning, Ft Jackson, Ft Leonard Wood, and Ft Sill.
WHEN?	• Continuously ongoing. APHC provides a weekly ARD report and has the capability to detect clusters in near real-time.
HOW?	• Respiratory samples from trainees are analyzed for multiple causes of ARD (e.g., influenza, parainfluenza, adenovirus, Group A streptococcus, etc.). The output is reviewed by installation-level ARD Surveillance Program Coordinators and reported to APHC.

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COVID-19 Reporting

WHAT?	• COVID-19 is a Reportable Medical Event (RME), a condition that must be reported to both installation and local civilian public health authorities
WHY?	• RME reporting is one method for public health authorities to track disease activity and identify outbreaks
WHO?	• Health Providers • Installation Public Health Department
WHERE?	• Cases must be reported as soon as possible after they are identified
WHEN?	• The Disease Reporting System internet (DRSi) is the DoD system of record for RME reporting. Local public health departments have their own codified processes
HOW?	• MTF providers, lab personnel and installation public health identify and report cases IAW Armed Forces Reportable Medical Events and Case Definitions as well as state and local regulations