INFORMATION PAPER

DHA-IHD
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# RECOMMENDATIONS FOR MASS IMMUNIZATION EVENTS DURING PANDEMIC CONDITIONS

## ISSUE:

Department of Defense (DoD) initiatives directed at prevention and control of influenza remains an annual priority to maintain force health protection and readiness. Influenza vaccination is the single most important activity for prevention of influenza and typically, multiple mass immunization events are required to achieve program performance goals. When preparing for mass vaccination events, DoD personnel need to include measures to decrease the risk of transmission for diseases like COVID-19, for which there is no current vaccine.

## BACKGROUND:

COVID-19 is a novel, highly contagious respiratory virus. It has widespread sustained human transmission and significant morbidity and mortality. In December 2019, people first detected the virus in Wuhan, China, and on 11 March 2020, officials with the World Health Organization declared it a worldwide pandemic. The virus has a significant potential to impact DoD force health readiness. Pandemics may significantly affect public health, healthcare systems and other critical infrastructure, such as law enforcement, emergency medical services, and sectors of the transportation industry. Non-pharmaceutical interventions, such as screening and social distancing, remain a primary response strategy to try to delay the spread of the virus and reduce the disease's impact

Influenza (the flu) is a contagious respiratory illness caused by influenza viruses. Flu seasons are unpredictable and have the potential to impact DoD force health readiness. In the United States, influenza results in over 40 million reported cases, over 750,000 hospitalizations due to serious complications, and over 35,000 deaths annually. Vaccination is the primary method for preventing influenza and its complications. The Centers for Disease Control and Prevention (CDC) and the Advisory Committee on Immunization Practices (ACIP) recommend seasonal influenza vaccine for all people aged 6 months and older.

A significant annual effort is required to provide influenza vaccination to all DoD Service Members, beneficiaries and eligible civilians. During pandemic conditions, planners of mass immunization events need to consider additional measures to minimize risk of COVID-19 or similar infectious disease transmission during mass immunization events.

## DISCUSSION:

### A. Risk Assessment[1,2]:

Current and projected assessment of current local, regional, national and international status and recommendations may affect planning and implementation of group medical events.

**Health Protection Condition (HPCON) 0**

- Baseline: Normal operations, regular preparedness activities.
- No service adjustments necessary.

**HPCON A**

- Report of unusual health risk or disease. Limited health alert.
- Communicate risk and symptoms of health threat to installation.
- Review plans, and verify training, stocks, and posture.
- Stay informed with public health agencies.
- No service adjustments necessary.

**HPCON B**

- Moderate: Epidemic of Contagious Illness with signs of possible community acquired transmission. May need to implement these measures before WHO officially declares a pandemic.
- Emergency declarations may not be present on local, state, national or international level.
- Consider potential for service disruption in selected patient risk-groups, need to adjust schedules and clinic/staff availability and infection control and prevention measures.
- Consider implementation of partial service adjustment strategies, especially for select high-risk groups.

**HPCON C**

- Substantial: Presence of local, state, national or international emergency declarations in response to Epidemic of Contagious Illness with confirmed community-acquired spread. May need to implement these measures before WHO officially declares a pandemic.
- Social distancing, cancellation of in-person gatherings, movement restrictions recommended.
- May affect supplies, schedules and clinic/staff availability and infection control and prevention measures. May affect base access or clinic/location/site access to non-essential personnel.
- Implement partial or significant service adjustment strategies to minimize transmission to all patients.

**HPCON D**

- Severe: Local, state, national and/or international emergency declared in response to an Epidemic of Contagious Illness with confirmed community-acquired spread with active quarantine measures. May need to implement these measures before WHO officially declares a pandemic.
- Imminent risk to patients and medical staff.

- Social distancing, cancellation of in-person gatherings, movement restrictions recommended.
- May affect supplies, schedules and clinic/staff availability and infection control and prevention measures. May affect base access or clinic/location/site access to non-essential personnel.
- Implement significant service adjustment strategies to minimize transmission to all patients.

**B. Planning:**

1. Use of the Defense Health Agency (DHA) Off-Site Vaccination Clinic Checklist is highly recommended, with a focus on strategies to achieve social distancing in each individualized service setting. https://www.health.mil/Reference-Center/Publications/2019/06/21/Checklist-Best-Practices-for-Vaccination-Clinics-Held-at-Satellite-Temporary-or-Off-Site-Locations (click to download pdf).

2. Consider for whom you are providing immunization services (military, civilian employees, beneficiaries, children, infants), the number of participants your event/site can process in a given time period and the anticipated number of participants.
Discourage travel to the immunization event site by any persons not receiving immunization the day of event (e.g. children too young to be vaccinated or persons already vaccinated), unless they do not have a household alternative.
Discourage travel to or event participation by symptomatic or ill individuals or any persons with recent exposure. Follow current pandemic guidelines/policy per the CDC, MTF or DoD as applicable. Communicate via marketing/media campaign and/or communication plan the purpose is to prevent unnecessary exposure.

3. Utilization of reservation or appointment systems for groups or individuals allows for better simultaneous attendance management. Military members and DoD civilian employees can be assigned appointment blocks similar to usual readiness clinics. Other less structured approaches could utilize timing with sorting mechanisms such as family surnames (e.g. letters ABC arrive 08:00-09:00).

4. Develop a circulation control plan with a one way entrance and exit.

5. Prior to the event, develop a communication plan to provide detailed event information for participants, to include (as applicable):

-Event description including how this event differs from usual mass immunization events.

-Social distancing strategies and their purpose.

-What to expect and preparation steps for attendance such as completion of screening forms or telehealth appointments prior to event.

-Any requirements for attendance such as wearing a cloth facial covering or other current military, local or CDC recommendations and/or requirements:

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

-Any instructions concerning their choice of clothing to allow access to their deltoid.

-Any prohibitions such as persons not receiving vaccine if screening process not completed or persons with illness symptoms.

-Identification of alternatives or consequences for not meeting each requirement (e.g. provision of face coverings, refusal to admit to event, paper-screening alternatives).

-Provide event knowledgeable contact points (phone, email) for questions.

6. Development of a detailed marketing plan/media campaign is recommended for beneficiary targeted events. Currently, under COVID-19 HPCON-C, immunization rates for routine immunizations have demonstrated very significant decreases. Topics to address include benefits of vaccine, (including under current conditions) and measures by the event planners to protect vaccinees and information as noted above in #5.

7. Utilize walkthroughs or mock drills prior to event to assess for overall functioning. Consider trial of smaller events such as catchup back-to-school mass event targeting only 4-6 year olds, 11 year olds or college students.

**C. Choice of Influenza Vaccine Products:**

1. Offered influenza vaccine products should follow seasonal ACIP recommendations and current DoD formulary. ACIP votes on recommendations for upcoming influenza season in June and generally releases these recommendations by August. It is unknown as of this writing if ACIP will make additional recommendations or deviations from routine use for pandemic conditions, particularly concerning use of Live Attenuated Influenza Vaccine (LAIV).

2. ACIP approved the use of LAIV vaccine in recent years. Due to its intranasal route, delivery of LAIV requires less direct patient contact and mitigates risk of site selection issues compared to injectable vaccines. Under pandemic conditions, ACIP could have novel recommendations such as the use of self-administered dosing, or conversely, a recommendation against use of LAIV because LAIV administration may induce sneezing (increasing droplet or respiratory transmission risk). Current ACIP recommendations for routine use of LAIV and if applicable, pandemic setting, should be reviewed and followed.

3. Injectable influenza vaccine (IIV) will be a necessary product. Offering only IIV product enhances screening efficiency. Use of LAIV increases complexity of screening due to its broader list of contraindications for use and may decrease screening efficiency.

4. LAIV is not a contracted product for the 2020-2021 influenza season, but individual military treatment facilities (MTFs) could still order it through the direct vendor.

**D. Screening**:

1. Planners may explore electronic screening and registration options within local resources for initiation and completion of these steps prior to individuals arriving at the site of the mass immunization event.

2. Utilizing electronic and telehealth resources for registration and screening (initial or those requiring additional provider evaluation), could limit personnel interaction, potential for fomite transmission and possibly enhance efficiency under pandemic conditions.

3. Vaccine Information Statements (VIS) can be provided electronically. They can also be additionally displayed in large signage at the event and include quick response (QR) codes. Keep paper copies available for those who may want a copy, as required by law.

4. If electronic screening method is utilized, an alternate option for traditional paper on site screening may also be required and possibly as a backup plan. Planning for fomite management needs to be considered to include source control, cleaning, disinfection and disposal measures.

**E. Vaccination Stations:**

1. Fundamental logistical planning for staging will vary depending on the venue site, staff complement, and declared HPCON risk level.

2. Utilization of personal protective equipment (PPE) by staff must meet local MTF/DoD policy. Event planners may add additional measures above requirements at their discretion with considerations for their unique mass immunization event and the requirements of each station.

3. Event may require additional resource planning for handwashing stations, portable latrines, plan for PPE disposal, information technology (IT) support, and parking or vehicle management.

4. Outdoor events need to accommodate any weather requirements.

5. Consider using other staff to direct and manage foot or vehicle traffic, optimize flow between staging areas, and maintain supplies (e.g. security personnel, Red Cross volunteers, administrative staff, or staff support from units).

6. Planners need to develop an emergency response and resource plan (staff, equipment) for adverse events. Staff roles and responsibilities, rapid access to staging areas, and a plan for patient transport to emergency care if needed must be identified. Planners may need to consider methods to travel rapidly across a large physical area (vehicles, golf carts).

7. Staging areas

Staging area 1:

Set up a prescreening area for COVID-19 (or other pandemic) symptoms with appropriately PPE garbed staff. Defer immunization of individuals who fail pandemic screening and refer them for other medical care as appropriate per local MTF policy.

Alternatively, if all mass immunization staff are garbed in appropriate PPE and adequate social distancing at the event is accommodated, a prescreening step for COVID-19 may be unnecessary.

Staging area 2:
This site is for verification of eligibility (identification card). Planners should utilize scanning if available and may provide traditional paper registration. Paper screening forms and paper VIS could be dispensed at this site as well.

Staging area 3:
This is the site of initial patient screening and vaccination orders. As an alternative, planners may consider using telehealth services prior to the event to prescreen the majority of patients. Planners need to consider use and location for traditional on-site paper screening methods as part of the event process and for contingency should electronic screening services fail to meet requirements. A separate area will be required for persons who fail influenza vaccine screening and require further evaluation.

Staging area 4:
This is for vaccination stations staffed by sufficient personnel to accommodate the demand and to allow for social distancing.

Staging area 5:
This is the location where people need to wait for 15 minutes after they receive the immunization. The 15-minute wait is a standard of care and strongly recommended. Site consideration include the ability to maintain social distancing with seating and emergency response access to patients.

Staging area 6:
This is the location to examine and treat individuals with post vaccination issues, such as syncope or allergic reaction, etc. Plan for the need to transport some patients for follow on care over further than typical distances.

Staging area 7: Keep computers in this area for documentation.

**F. Immunization of High Risk Groups**

1. Additional planning for protection of high-risk groups, as possible, must be a consideration during implementation of mass immunization events.

2. Special efforts must be made to vaccinate those at high risk from influenza complications to include pregnant women, children under 5 years of age, adults 65 years and older and those with certain medical conditions.

3. Discourage travel to the immunization event site by any persons not receiving immunization the day of event (such as children too young to be vaccinated or persons already vaccinated).

Communicate via marketing/media campaign and/or communication plan the purpose is to prevent unnecessary exposure.

4. Discourage travel to or event participation by symptomatic or ill individuals or any persons with recent exposure per current pandemic guidelines from the CDC or per DoD/MTF guidelines/policy.

5. Strategies to lower risk for persons in high risk categories to COVID-19 may also be considered. Data defining high risk groups for COVID-19 is still evolving as of this writing. Persons identified as higher risk include persons who are over age 65, immunosuppressed, pregnant, or have chronic diseases especially heart disease, diabetes and underlying pulmonary diseases including asthma. Consider alternative smaller events or limited attendance time blocks for identified high-risk groups.

6. IIV in the setting of COVID-19 is a routine vaccination. Should the immunization event be related to a pandemic vaccine, CDC offers guidance on general principles of targeting high-risk groups. https://www.cdc.gov/flu/pandemic-resources/national-strategy/planning-guidance/implementation.html.

**G. Implementation Alternatives to Traditional Mass Immunization Events**

**1. Social Distancing Immunization Clinics**
Traditional large mass immunization but distributed over larger physical area.

Benefits: Efficiency.
Limitations: Access by large numbers of persons in the same location over a short time period increasing transmission risk. Harder to control social distancing. Availability of adequate site options at some locations.

Selection of either indoor or outdoor locations that allows for distribution of recipients and staging over a physically larger area that is not otherwise in use. Outdoor examples may include settings such as a track oval, stadium, large open field area or indoor settings such as a large gymnasium, cafeteria, medical or conference center.

Special considerations:
a. Avoid high-risk participant clustering or bottlenecks such as from the parking lot to the entrance and exit to vehicles.
b. Six foot minimum markings should be pre-identified and possibly predefined walking lanes flowing in one direction. Distances may be increased to greater than 6 feet to facilitate spread of attendees.
c. Encourage persons with difficulty walking to bring their own outdoor folding chairs. Planners can consider provision of wheelchairs or electric carts for elderly/handicapped, possibly with a reservation system.
d. Plan for weather requirements if the event will be outdoors.

**2. Drive Through Immunization Clinics.**
Drive through mass immunization clinics have been utilized successfully by DoD under both normal and pandemic conditions.

Benefits: More effective social distancing strategy.
Limitations: Logistics and loss of efficiency, increased risk of poor immunization technique due to positioning or anatomic injection site access.

Special considerations
a. Consider location and timing to accommodate expected vehicle traffic flow and minimize impact on usual activities at selected location.
b. Planners will need to develop a circulation control plan accomodating motor vehicles and local traffic patterns. The plan may need to be able to accommodate splitting of lanes for screening stations, vaccination stations and parking for 15-minute wait.
c. Strict enforcement of the 15-minute wait is strongly encouraged for drivers. Proof of documentation could be withheld until after the 15 minute wait time is completed.
d. Planning considerations need to include the ability to position the patient and vaccinator in correct orientation. Attention to correct technique and anatomic site selection and access need to be maintained to avoid vaccine injury due to inappropriate needle placement. Recipients could be expected to exit their vehicle (both vaccinator and vaccinee standing) or use of chairs next to vehicle (both sitting) or vaccinators next to open car doors (sitting).
e. Planners may consider minimum age limits for this event, as young children cannot reliably comply with positioning and with physical requirements while in a vehicle.

**3. Mini Mobile Teams**
Delivery of immunization services by small teams at multiple sites.

Benefits: Decreases large groups in a same/new setting, both simultaneously and over several hour period. May be most useful for military groups in contained areas such as barracks or group key locations. Keeps exposure contained within these groups.
Limitations: Logistics and potential loss of efficiency of moving small teams to multiple locations; lack of control of those locations, documentation challenges.

Special considerations
a. Sites could include flights, squadrons, company, battalion, brigade, division, corps, tenant units, headquarters, motor pools, hangers, ships.
b. Sites may be scheduled in appointment time blocks. Medical officers at each site could be responsible for planning and implementing physical logistics and designing throughput at their individual sites, using the DHA Off-site Immunization checklist as a guide.

**4. Local Pharmacies under TRICARE Benefit[3]**
Local pharmacies may offer immunization services under the TRICARE benefit.

Benefits: May be useful for beneficiaries, small groups, National Guard and Reserve units (for those who are eligible).
Limitations: Retail service options may be limited or not offered under pandemic conditions.

Age restrictions may apply.

**References**

[1]https://www.jaci-inpractice.org/article/S2213-2198(20)30253-1/abstract
[2]https://www.defense.gov/Explore/Inside-DOD/Blog/Article/2128863/hpcon-understanding-health-protection-condition-levels/
[3] https://tricare.mil/HealthWellness/Preventive/FluResources
https://www.cdc.gov/flu/pandemic-resources/national-strategy/planning-guidance/implementation.html.

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