

INTRODUCTION

This document contains information to assist you in completing the Pandemic Influenza Vaccine Prioritization Survey. The reference document is divided into three parts:

Part I. Vaccination Criteria and Definitions (page 2)

- This section presents the vaccination strategies with descriptions as well as the seven criteria with definitions.

Part II. Target Group Descriptions (pages 3-12)

- This section presents the target groups and provides brief descriptions as well as sample occupations for each group.

Part III. Epidemiologic Criteria: Research Evidence (pages 13-17)

- This section summarizes the current research evidence on the epidemiologic criteria (risk of complication, risk of transmission, risk of infection, vaccine effectiveness) included in the Decision Analysis Scoring Tool (DAST).

Please refer to the terms and definitions presented in this document as you complete the Prioritization Survey.

SURVEY QUESTION GUIDELINES

DO

- Answer **all** survey questions to the best of your ability
- Think in terms of **norms** rather than exceptions for each target group
- Assume role-based groups are comprised of **healthy persons, ages 18-64**
- Think of **essential workers** for role-based target groups
- Answer “not sure” **only** if you cannot make a reasonable judgment
- **Leave the answer blank** if you choose not to answer the question

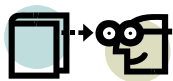
DON'T

- Spend a lot of time on **one** particular target group

REMEMBER

We are not assessing individual preferences or knowledge. Your individual answers will be **anonymous** and your survey results will be **aggregated** across the entire sample of participants.

PART I. VACCINATION CRITERIA AND DEFINITIONS



Essential Reading

Table 1 below presents the vaccination strategies and criteria. As you read the criteria definitions, think about the importance of each individual criterion in determining which target groups should be prioritized for vaccine. The information in the table below corresponds to [Question #1](#) on the [Prioritization Survey Instrument, Page 4](#).

TABLE 1. VACCINATION STRATEGIES AND CRITERIA

Strategy	Strategy Description	Criteria	Criteria Definition
1. Medical and prevention needs	This strategy favors those groups who are most likely to transmit influenza virus to susceptible populations and/or those groups at high risk of developing severe illness and/or death.	1. Risk of complication	Once infected, the probability of developing severe illness and/or dying as a result of the disease.
		2. Risk of transmission	Once infected, the probability of transmitting the virus to a susceptible person at high risk of influenza complications.
		3. Risk of infection	The probability of becoming infected through close and/or prolonged contact with potentially infectious persons.
2. Probability of successful immunization	This strategy favors those for whom vaccination has the highest probability of medical success— e.g. preventing severe influenza illness and/or death.	4. Vaccine effectiveness	Ability of vaccine to prevent serious illness and death from pandemic influenza by promoting an effective immune response.
3. Performs essential emergency response role	This strategy favors those groups who provide essential services in launching a pandemic emergency response.	5. Provides DIRECT pandemic emergency response service	Provides DIRECT service essential to carrying out a pandemic emergency response.
		6. Provides SUPPORT pandemic emergency response service	Provides SUPPORT service that is essential to carrying out a pandemic emergency response.
4. Performs essential community role	This strategy favors those groups who directly provide a service that is essential to maintaining social continuity.	7. Provides CRITICAL infrastructure services ¹	Provides services to ensure the health and safety of California residents and to maintain social and economic continuity in the state (e.g. services that meet basic needs (food, water, energy, shelter, health, welfare) of California residents and ensure that the state functions.)

¹ The USA Patriot Act defines “critical infrastructure” as systems and assets, whether physical or virtual, so vital to the United States that the incapacity or destruction of such systems and assets would have a debilitating impact on security, national economic security, national public health or safety, or any combination of those matters. (USA Patriot Act of 2001 (P.L. 107-56 Sec. 1016(e))).

PART II. TARGET GROUP DESCRIPTIONS

The entire population of California is divided into the 73 target groups listed below. The target groups are classified by health related factors and professional roles. Health-related target groups are classified by their health characteristic and in some cases their age.² Groups performing professional roles are classified by the industry in which they work in, the occupational setting where they work, and in some cases, the occupation or job title they hold.³

TARGET GROUP LIST

HEALTH- RELATED CHARACTERISTIC TARGET GROUPS	ROLE-BASED TARGET GROUPS
People with Chronic Medical Conditions, all ages	Medical Care Service Industry
People with Chronic Medical Conditions, ages 2-17	General Medical and Surgical Hospitals
People with Chronic Medical Conditions, ages 18 – 64	<i>Medical Care Practitioners</i>
People with Chronic Medical Conditions, ages 65+	<i>Medical Care Technicians and Aides</i>
Pregnant Women, all ages	<i>Medical Scientists and Laboratory Technicians</i>
Infants and Toddlers, ages 6-23 months	<i>Mental Health and Social Service Providers</i>
Household Contacts of Children <6 months, all ages	<i>Health Care System Support and General Support</i>
Household Contacts of Children <6 months, ages 2-17	Psychiatric and Substance Abuse Hospitals
Household Contacts of Children <6 months, ages 18-64	<i>Medical Care Practitioners</i>
Household Contacts of Children <6 months, ages 65+	<i>Medical Care Technicians and Aides</i>
Household Contacts of Severely Immunocompromised Persons, all ages	<i>Medical Scientists and Laboratory Technicians</i>
Household Contacts of Severely Immunocompromised Persons, ages 2-17	<i>Mental Health and Social Service Providers</i>
Household Contacts of Severely Immunocompromised Persons, ages 18-64	<i>Health Care System Support and General Support</i>
Household Contacts of Severely Immunocompromised Persons, ages 65+	Ambulatory Care Facilities
	<i>Medical Care Practitioners</i>
	<i>Medical Care Technicians and Aides</i>
	<i>Medical Scientists and Laboratory Technicians</i>
	<i>Mental Health and Social Service Providers</i>
	<i>Health Care System Support and General Support</i>

² Health-characteristics are based on CDC descriptions of populations at high risk of influenza complications or at higher risk of transmitting the virus to persons unable to receive the vaccine during interpandemic years.

³ Target group descriptions within industries, settings and occupations are based on the North American Industry Classification System (NAICS) definitions for 2002.
<http://www.census.gov/epcd/naics02/naicod02.htm#N22>.

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ROLE-BASED TARGET GROUPS	ROLE-BASED TARGET GROUPS
Medical Care Service Industry Cont.	Agriculture
Nursing and Residential Care Facilities	Poultry and Egg Production
<i>Medical Care Practitioners</i>	All other Agriculture, Forestry, Fishing, and Hunting
<i>Medical Care Technicians and Aides</i>	Information
<i>Mental Health and Social Service Providers</i>	Broadcasting and Publishing
<i>Health Care System Support and General Support</i>	Telecommunications
Public Health Departments	Educational Services
Front-Line Public Health Emergency Responders	Financial and Insurance Services
Public Health Surge Personnel	Community and Individual Care Services
Non-emergency Public Health Professionals	Religious Organizations
Commercial Health Industries	Emergency Relief Organizations
Medical and Diagnostic Laboratories	Non-emergency Social Assistance Services
Medical and Pharmaceutical Manufacturing	Transportation and Warehousing (Selected Industries)
Pharmacies	Passenger Transportation
Other Health and Personal Care Stores	Non-passenger Cargo transportation
Death Care Services	Postal Services
Public Administration (Selected Industries)	Warehousing and Storage
Executive Offices	Manufacturing
Legislative Bodies and Offices	Food Manufacturing
Tribal Governments	All other Manufacturing
Public Finance Services	Mining
Departments of Fish and Game (CDFG)	Retail Trade (Selected Industries)
Departments of Food and Agriculture (CDFA)	Food, Beverage and Grocery Stores
Public Safety and Justice (Selected Industries)	Gasoline Stations
Judicial and Legal Services	Utilities
Police Protection/ Law Enforcement	Waste Management and Remediation Services
Fire Protection and Rescue	ALL OTHER HEALTHY POPULATIONS
Emergency Medical Services (EMS)	Healthy Children, ages 2-5
Corrections	Healthy Children ages 6-17
Emergency and Disaster Planning and Management Services	Healthy Adults, ages 18-64

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TARGET GROUP DESCRIPTIONS

The following tables present the target groups and provide brief descriptions as well as sample occupations for each group. Please refer to these tables if you need further information on specific target groups.

I. TARGET GROUPS WITH HEALTH-RELATED CHARACTERISTICS

Target Groups Sub-groups (by age)	Target Group Descriptions
PEOPLE WITH CHRONIC MEDICAL CONDITIONS	Chronic diseases that place a person at higher risk of developing influenza complications (severe illness, death) if infected Chronic medical conditions include: <ol style="list-style-type: none"> 1. Physician-diagnosed respiratory diseases 2. Any conditions that compromise respiratory functioning 3. Metabolic diseases (diabetes) 4. Cardiovascular or renal diseases 5. Blood diseases 6. End-state renal disease 7. Diseases leading to or requiring immunosuppression 8. Children who receive long-term aspirin therapy
People with Chronic Medical Conditions, ages 2-17	Same as above
People with Chronic Medical Conditions, ages 18 – 64	Same as above
People with Chronic Medical Conditions, ages 65+	Same as above
PREGNANT WOMEN, ALL AGES	Women who will become pregnant at any time during the influenza season
INFANTS AND TODDLERS, AGES 6-23 MONTHS	Includes children who turn age 6-23 months during the influenza season
HOUSEHOLD CONTACTS OF CHILDREN <6 MONTHS	Includes all persons residing at home with a child age <6 months
Household Contacts of Children <6 months, ages 2-17	Same as above
Household contacts of Children <6 months, ages 18-64	Same as above
Household contacts of Children <6 months, ages 65+	Same as above
HOUSEHOLD CONTACTS OF SEVERELY IMMUNOCOMPROMISED PERSONS	Include all persons residing at home with a person receiving an organ transplant, diagnosed with AIDS or diagnosed with cancer
Household Contacts of Severely Immunocompromised Persons, ages 2-17	Same as above
Household Contacts of Severely Immunocompromised Persons, ages 18-64	Same as above
Household Contacts of Severely Immunocompromised Persons, ages 65+	Same as above

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II. ROLE-BASED TARGET GROUPS WITHIN HEALTH INDUSTRIES

Target Groups Sub-groups (by setting and occupation)	Target Group Descriptions	Sample Occupations
MEDICAL CARE SERVICE INDUSTRY	Includes all professionals working in medical care settings	
General Medical and Surgical Hospitals	<p>Facilities that provide medical, diagnostic and treatment services to inpatients</p> <p>Includes the following occupational groups</p> <ul style="list-style-type: none"> A. Medical Care Practitioners B. Medical Care Technicians and Aides C. Medical Scientists and Laboratory Technicians D. Mental Health and Social Service Providers E. Health Care System Support and General Support 	See occupational groups below
<i>Medical Care Practitioners</i>	Includes professionals who provide direct patient care services through the diagnosis and treatment of diseases and injuries.	Family and general practitioners, surgeons, registered nurses, and physician assistants
<i>Medical Care Technicians and Aides</i>	Includes professionals who prepare equipment for medical procedures and administer routine tests and treatment plans to patients.	Respiratory therapists, home health aides, nursing aides, medical assistants
<i>Medical Scientists and Laboratory Technicians,</i>	Includes professionals who conduct research dealing with the understanding of human diseases and who perform laboratory tests to diagnosis, treat, and prevent disease	Pathologists, microbiologists, medical and clinical laboratory technicians
<i>Mental Health and Social Service Providers</i>	Includes professionals who provide mental health care and social support services to patients, families, and health care workers	Mental health counselors, medical and public health social workers
<i>Health Care System Support and General Support</i>	Health care system support includes professionals who perform organizational, business, financial and administrative roles. General support includes professionals who provide security, food preparation and handling, cleaning and maintenance and personal care services to support the daily operations of the medical care facility	Medical and health service managers, budget analysts, computer systems analysts, medical secretaries, security guards, food preparation workers, janitors and cleaners, maids and housekeeping

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Target Groups Sub-groups (by setting and occupation)	Target Group Descriptions	Sample Occupations
MEDICAL CARE SERVICE INDUSTRY (CONT.)	Includes all professionals working in medical care settings	
Psychiatric and Substance Abuse Hospitals	Facilities that provide medical, diagnostic and treatment services to inpatients who suffer mental illness or substance abuse disorders	Same occupational groups as above
Ambulatory Care Facilities	Facilities that provide direct patient care services to ambulatory patients in practitioner's offices, outpatient care clinics, home health care settings, ambulatory care service centers	Same occupational groups as above
Nursing and Residential Care Facilities	Facilities that provide residential care combined with either nursing, supervisory or other types of care required by residents	Same occupational groups as above, except Medical Scientists and Laboratory Technicians
PUBLIC HEALTH DEPARTMENTS	Includes public health workers employed in state or local health departments within the following occupational groups: A. Front-line Public Health Emergency Responders B. Public Health Surge Personnel C. Non-emergency Public Health Professionals	
Front-line Public Health Emergency Responders	Public health workers who have a role within the incident command structure (ICS) for infectious disease emergencies and this role has been designated PRIOR TO THE EVENT occurring	Medical officers, public information officers, bioterrorism coordinators, public health laboratory technicians
Public Health Surge Personnel	Public health workers who have a role within the incident command structure (ICS) for infectious disease emergencies and this role has been designated DURING THE EVENT	Environmental/ occupational health inspectors, coroners and emergency logistics finance, administrative, and ITS support staff
Non-emergency Public Health Professionals	Public health professionals whose work is not affiliated with the emergency response as well as professionals who provide security, cleaning and maintenance services to support the daily operations of the health department facility	Health educators, non-communicable disease researchers and epidemiologists and security guards

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Target Groups Sub-groups (by setting and occupation)	Target Group Descriptions	Sample Occupations
COMMERCIAL HEALTH INDUSTRIES		
Medical and Diagnostic Laboratories	Industry provides analytic or diagnostic services to the medical care service industry	Clinical lab technicians, medical secretaries, microbiologists
Medical and pharmaceutical manufacturing	Industry is engaged in the following activities: A. Manufacturing biological products B. Processing botanical drugs and herbs C. Isolating active medicinal products from drugs and herbs D. Manufacturing pharmaceuticals	Scientists, biological technicians, machine operators
Pharmacies	Industry is engaged in retailing prescription or nonprescription drugs and medicines	Pharmacists, pharmacy aides, cashiers.
Other Health and Personal Care Stores	Industry retails health and personal care merchandise. Examples of stores include: optical stores, hearing aid stores, medical equipment and supply stores, and prosthetic stores.	Opticians, audiologists, optometrists, cashiers
Death Care Services	Industry is engaged in preparing the dead for burial or internment and conducting funerals.	Funeral services directors, morticians, embalmers

III. ROLE-BASED TARGET GROUPS WITHIN PUBLIC ADMINISTRATION, SAFETY, AND JUSTICE INDUSTRIES

Target Group Sub-groups (by industry sub sector and setting)	Target Group Description	Sample Occupations
PUBLIC ADMINISTRATION (SELECT INDUSTRIES)		
Executive Offices	Industry comprises state and local offices of chief executives and their advisory committees and commissions	Governor, mayors, city and county commissioners, executive advisors and staff
Legislative Bodies and Offices	Industry comprises state and local legislative bodies and their advisory committees and commissions	City, county and state legislators and their staff
Tribal Governments	Industry comprises governing bodies that perform legislative, judicial, and administrative functions for their American Indian and Alaska Native lands	Tribal government officials and personnel

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Target Group Sub-groups (by industry sub sector and setting)	Target Group Description	Sample Occupations
PUBLIC ADMINISTRATION CONT. (SELECT INDUSTRIES)	Includes professionals working for the government within select public administration industries	
Public Finance Services	Industry comprises state and local government offices primarily engaged in public finance, taxation and monetary policy	Budget analysts, financial managers, and public fiscal and administrative staff
Departments of Fish and Game	Department of Fish and Game is responsible for planning, management, regulation and conservation of game, fish, and wildlife populations for recreational, commercial, scientific, and educational uses	Game wardens, park rangers, professionals working within the department of fish and game
Department of Food and Agriculture	Department of Food and Agriculture is responsible for regulating and controlling the grading and inspection of food, plants, animals, and other agricultural products	Food inspectors, veterinarians, professionals working in agricultural regulation agencies
PUBLIC SAFETY AND JUSTICE	Includes professional working for the government within public safety and justice industries	
Judicial and Legal Services	Industry is engaged in providing legal counsel or prosecution services for the government and includes civilian courts of law	Judges and magistrates, public prosecutors and defenders, professionals working in courts
Police Protection/ Law Enforcement	Industry is engaged in criminal and civil law enforcement, police, traffic safety, and other activities related to the enforcement of the law and preservation of order	Detectives and criminal investigators, police and sheriff patrol officers, police dispatchers
Fire Protection and Rescue	Industry is engaged in fire fighting rescue, other related fire protection activities	Fire fighters, fire dispatchers
Emergency Medical Services (EMS)	Industry is engaged in providing emergency medical care and ambulance services	Paramedics, EMTs, ambulance drivers, dispatchers
Corrections	Industry is engaged in managing and operating correctional institutions	Correctional officers and jailers, administrative and personal care service staff of correctional institutions
Emergency and Disaster Planning and Management Services	Industry prepares emergency plans and procedures for natural, wartime, or technological emergencies, hazardous disasters or hostage situations	State and local emergency management planners and their staff

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IV. ROLE-BASED TARGET GROUPS WITHIN NON-HEALTH COMMERCIAL INDUSTRIES

Target Group Sub-groups (by industry subsector)	Target Group Description	Sample Occupations
AGRICULTURE	Industry is engaged in growing crops, raising animals, harvesting timber, and harvesting fish and other animals	
Poultry and Egg Production	Industry is engaged in breeding, hatching, and raising poultry for meat or egg production	Animal breeders, agriculture equipment operators, sorters
All Other Agriculture, Forestry, Fishing, and Hunting	See Agriculture description above	Farmers, farm workers, ranchers, fishermen, and loggers
INFORMATION	Industry is comprised of the following subsectors: A. Publishing B. Broadcasting C. Telecommunications	
Broadcasting and Publishing	Industry is engaged in traditional broadcasting and broadcasting over the Internet as well as software, paper and internet publishing	Radio and television broadcasters, newspaper and internet publishers
Telecommunications	Industry includes internet service providers and web search portals, data processing industries, and the information services industries	Computer engineers, telecommunications installers and repairers
EDUCATIONAL SERVICES	Industry provides instruction and training in schools, colleges, universities, and training centers. These establishments may also offer food and accommodation services to their students.	Teachers, professors, educational administrators, food service workers, school psychologists, and security guards
FINANCIAL AND INSURANCE SERVICES	Industry includes establishments primarily engaged in facilitating financial transactions (transactions involving the creation, liquidation, or change in ownership of financial assets)	Bankers, tellers, insurance underwriters, and financial analysts
COMMUNITY AND INDIVIDUAL CARE SERVICES	Includes religious, emergency relief, and non-emergency social assistance services	
Religious Organizations	Industry is engaged in operating religious organizations, such as churches, religious temples, and monasteries and promoting religious activities	Clergy, religious counselors, volunteers, administrative staff
Emergency Relief Organizations	Industry provides food, shelter, clothing, medical relief, resettlement, and counseling to victims of domestic or international disasters or conflicts	Nurses, family social workers, volunteers, mental health counselors, administrative staff
Non-emergency Social Assistance Services	Industries provide a variety of social assistance services including: individual and family services, vocational and rehabilitation services and child day care services	Social workers, rehabilitation counselors, vocational assistants

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Target Group Sub-groups (by industry subsector)	Target Group Description	Sample Occupations
TRANSPORTATION AND WAREHOUSING (SELECTED INDUSTRIES)	Includes select industries providing transportation of passengers and cargo, as well as warehousing and storage for goods	
Passenger transportation	Industry is engaged in transportation of passengers via air, rail, water, and ground routes	Aircraft pilots, truck drivers, sailors, railway engineers
Non-passenger Cargo Transportation	Industry is engaged in shipment of cargo via air, rail, water, pipeline and ground routes	Aircraft pilots, freight workers, laborers
Postal Services	Industry is engaged in operating the National Postal Service as well as private industry postal carriers (e.g. FedEx, UPS)	Postal service clerks, mail carriers, mail sorters and machine operators
Warehousing and Storage	Industry is engaged in operating warehousing and storage facilities for general merchandise, refrigerated goods, and other warehouse products	Laborers, packers and packagers, sales managers, and security guards
MANUFACTURING	Manufacturing industry comprises establishments engaged in the mechanical, physical, or chemical transformation of materials, substances, or components into new products.	
FOOD MANUFACTURING	Industries transform livestock and agricultural products into products for intermediate or final consumption	Butchers, bakers, and food batchmakers
ALL OTHER MANUFACTURING	See Manufacturing description above	Engineers, Machine operators, laborers, mechanics
MINING	Industry is engaged in the extraction of coal and ores; crude petroleum; and gases, such as natural gas	Operating engineers, extraction workers, support personnel
RETAIL TRADE (SELECTED INDUSTRIES)	Includes food beverage and grocery stores and gasoline stations	
Food, Beverage and Grocery Stores	Industry is engaged in the retail of food and beverages merchandise.	Cashiers, packers, food preparation workers
Gasoline Stations	Industry is engaged in retailing automotive fuels (e.g., gasoline, diesel fuel, and gasohol), automotive oils, and convenience store items	Service station attendants, mechanics, and cashiers
UTILITIES	Industry is engaged in the provision of the following utility services: electric power, natural gas, steam supply, water supply, and sewage removal	Power plant operators, civil engineers, water control and valve installers, administrative staff
WASTE MANAGEMENT AND REMEDIATION SERVICES	Industry is engaged in the collection, treatment, and disposal of waste materials.	Refuse collectors, truck drivers, waste treatment plant operators, hazardous materials workers

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V. OTHER HEALTHY TARGET GROUPS

Target Group <i>Sub- groups (Categories)</i>	Target Group Descriptions
ALL OTHER HEALTHY POPULATIONS	Includes persons with NO underlying health characteristics that put them at high risk of influenza complications and those 18+ who are NOT EMPLOYED in the industries identified above
Healthy Children, ages 2-5	Same as above
Healthy Children, ages 6-17	Same as above
Healthy Adults, ages 18-64	Same as above
Healthy Adults, ages 65+	All group members are included within People with Chronic Medical Conditions, ages 65+ target group

PART III. EPIDEMIOLOGIC CRITERIA: RESEARCH EVIDENCE

The tables below summarize the current research evidence on the epidemiologic criteria (risk of complication, risk of transmission, risk of infection, vaccine effectiveness) included in the Vaccine Prioritization Survey Instrument. Please refer to the terms and definitions presented in this section as you complete the prioritization survey.

Risk of Complication Criterion

CRITERION DEFINITION

The definition of “**risk of complication**” is the following: Once infected, the probability of developing severe illness and/or dying as a result of the disease.

DETERMINANTS

The determinants of “**risk of complication**” are the following:

1. Age (*see research evidence*)
2. Co-morbidity; having pre-existing health conditions which increase risk of complications from influenza (*see research evidence*)



RESEARCH EVIDENCE

The table below summarizes the current research on the risk of complications from influenza illness that the target groups face during interpandemic years.⁴ This research evidence will be incorporated into the prioritization process. Those with the greatest risks of complications will receive greater priority for the “**Risk of Complication**” criterion. The information presented in Table 2 corresponds to **Question #2** of the **Prioritization Survey Instrument, Page 8**.

TABLE 2. RISK OF COMPLICATIONS FROM INFLUENZA

Health-Related Target Group	High Risk of Complications, Hospitalizations, and Deaths ⁵
People with Chronic Medical Conditions, all ages	Yes
Pregnant Women, all ages	Yes
Infants and Toddlers, ages 6 – 23 months	Yes
Healthy Children, ages 2 – 4	Yes
Healthy Children, ages 5 - 17	No
Healthy Adults, ages 18 – 64	No

⁴ If the target groups’ risks of influenza complications during a pandemic differ from those during interpandemic years, the prioritization model will incorporate these changes and the target groups facing the greatest risks will receive greater priority.

⁵ SA, H., F. K., et al. (2005). Prevention and Control of Influenza: Recommendations of the Advisory Committee on Immunization Practices (ACIP).

Risk of Transmission Criterion

CRITERION DEFINITION

The definition of “**risk of transmission**” is the following: Once infected the probability of transmitting the virus to a **susceptible person at high risk of influenza complications**. The figure below presents the dynamics of transmission.



DETERMINANTS

The determinants of “**risk of transmission**” are the following:

1. Duration of infectiousness; number of days a person sheds virus (*research evidence*)
2. Frequency, closeness, and duration of contact with susceptible populations at high risk for influenza complications (*Question #2*)



RESEARCH EVIDENCE

The table below summarizes current research on the periods of infectiousness that target groups face during interpandemic years.⁶ This research evidence will be incorporated into the prioritization process. Those with long periods of infectiousness will receive greater priority for the duration of infectiousness determinant. The information presented in Table 3 corresponds to **Question #3** of the **Prioritization Survey, Page 13**.

TABLE 3. PERIODS OF INFECTIOUSNESS FOR INFLUENZA ⁷

Target Group	Long Period of Infectiousness (8 days or more)
People with Chronic Medical Conditions, all ages	Yes
Infants and Toddlers, ages 6 – 23 months	Yes
Healthy Children, ages 2 – 4	Yes
Healthy Children, ages 5 - 17	No
Healthy Adults, ages 18 – 64	No
Pregnant Women, all ages	No research evidence exists

⁶ If the target groups’ periods of infectiousness during a pandemic differ from those during interpandemic years, the prioritization model will incorporate these changes and the target groups with the longest periods of infectiousness will receive greater priority.

⁷ SA, H., F. K., et al. (2005)

Risk of Infection Criterion

CRITERION DEFINITION

The definition of “**risk of infection**” is the following: The probability of becoming infected through close and/or prolonged contact with **potentially infectious persons** (those with long periods of infectiousness). The figure below presents the dynamics of infection.⁸



DETERMINANTS

The determinants of “**risk of infection**” are the following:

1. Frequency, closeness, and duration of contact with potentially infectious persons (those with long periods of infectiousness) (*Question #3*)

⁸ For group comparison purposes, assume that anyone who becomes infected with the influenza virus also develops disease (e.g. symptoms).

Vaccine Effectiveness Criterion

CRITERION DEFINITION

The definition of “**vaccine effectiveness**” is the following: Ability of vaccine to prevent illness and death from pandemic influenza by promoting an effective immune response.

DETERMINANTS

The determinants of “**vaccine effectiveness**” are the following:

1. Age (*Research Evidence*)
2. Co-morbidity; other conditions affecting immune response (*Research evidence*)



RESEARCH EVIDENCE

The table below summarizes the current research on vaccine efficacy in preventing severe illness and death for interpandemic influenza.^{9 10}

TABLE 4. LEVELS OF INFLUENZA VACCINE EFFICACY^{11 12 13}

Target Group	Vaccine Efficacy
People with Chronic Medical Conditions, ages 18 – 64	High ($\geq 70\%$) (though little research exists)
Pregnant Women, all ages	High ($\geq 70\%$)
Healthy Children, ages 5 - 17	High ($\geq 70\%$)
Healthy Adults, ages 18 – 64	High ($\geq 70\%$)
People with Chronic Medical Conditions, ages 2 - 17	Moderate (41 – 69%)
Infants and Toddlers, ages 6 – 23 months	Moderate (41 – 69%)
Health Children, ages 2 – 4	Moderate (41 – 69%)
People with Chronic Medical Conditions, ages 65+	Low ($\leq 40\%$)

⁹ If the levels of vaccine effectiveness during a pandemic differ from that during interpandemic years, the prioritization model will incorporate these changes and the target groups experiencing the highest levels of vaccine effectiveness will receive greater priority.

¹⁰ Vaccine effectiveness depends on degree of similarity between inactivated virus and actual virus circulating in population.

¹¹ SA, H., F. K., et al. (2005).

¹² Hak E, B E, et al. Clinical effectiveness of influenza vaccination in persons younger than 65 years with high-risk medical conditions: the PRISMA study. Arch Intern Med. 2005 Feb 14;165(3):274-80.

¹³ Englund, JA. Maternal immunization with inactivated influenza vaccine: rationale and experience. *Vaccine* 2003;21: 3490-64.

Reference and Contact Information

Web References

CIDP Pandemic Influenza Project Website

http://www.idready.org/pandemic_influenza/

CDHS Pandemic Influenza Preparedness and Response Plan (DCDC Homepage)

<http://www.dhs.ca.gov/ps/dcdc/dcdcindex.htm>

US Department of Health and Human Services Pandemic Influenza Website

<http://pandemicflu.gov/>

Contact Information

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