

# COVID-19 Vaccine Sub-Prioritization For Phase 1b

**Carolyn B. Bridges, MD, FACP**

Consulting physician for Idaho Dept of Health and Welfare

Retired Captain, U.S. Public Health Service

	Univ. of Oxford (Jenner Institute) with AstraZeneca	ModernaTX USA	BioNTech with Pfizer	Johnson & Johnson (Janssen Vaccines)	Novavax	Sanofi Pasteur with GlaxoSmithKline
Vax candidate/ type	ChAdOx1 Adenovirus vector	mRNA-1273	BNT162-b2 mRNA	Ad26.COV2-S or S.PP Adenovirus vector	NVX-CoV2373 Subunit protein with Matrix-M	Subunit protein with ASO3 adjuvant
Dosing	Single dose or Days 0 + 28-42	Days 0 + 28	Days 0 + 21	Single dose or Days 0 + 56	Days 0 + 21	Not available
Storage	2-8°C  <b>Resumed</b>	Ship @ -20°C. 2-8°C 30 days; room temp up to 12 hours after thaw; can ship in smaller quantities; frozen liquid.	Ship w/ dry ice. POC dry ice. 2-8°C 5 days; use 5- dose vial within 6 hours of reconstitution; ship in trays of 975 doses in special shipping containers that must recharged with dry ice with 24 hours or store in -75C.	2-8°C  <b>Resumed</b>	2-8°C	2-8°C  Mix antigen w/ adjuvant prior to vaccination.
Clinical Trial Status	Phase 2/3	Phase 3	Phase 3	Phase 3	Phase 3	Phase 1/2
Ages Studied	18-55, 5-12	18+	12-85	18+	18-84	18+

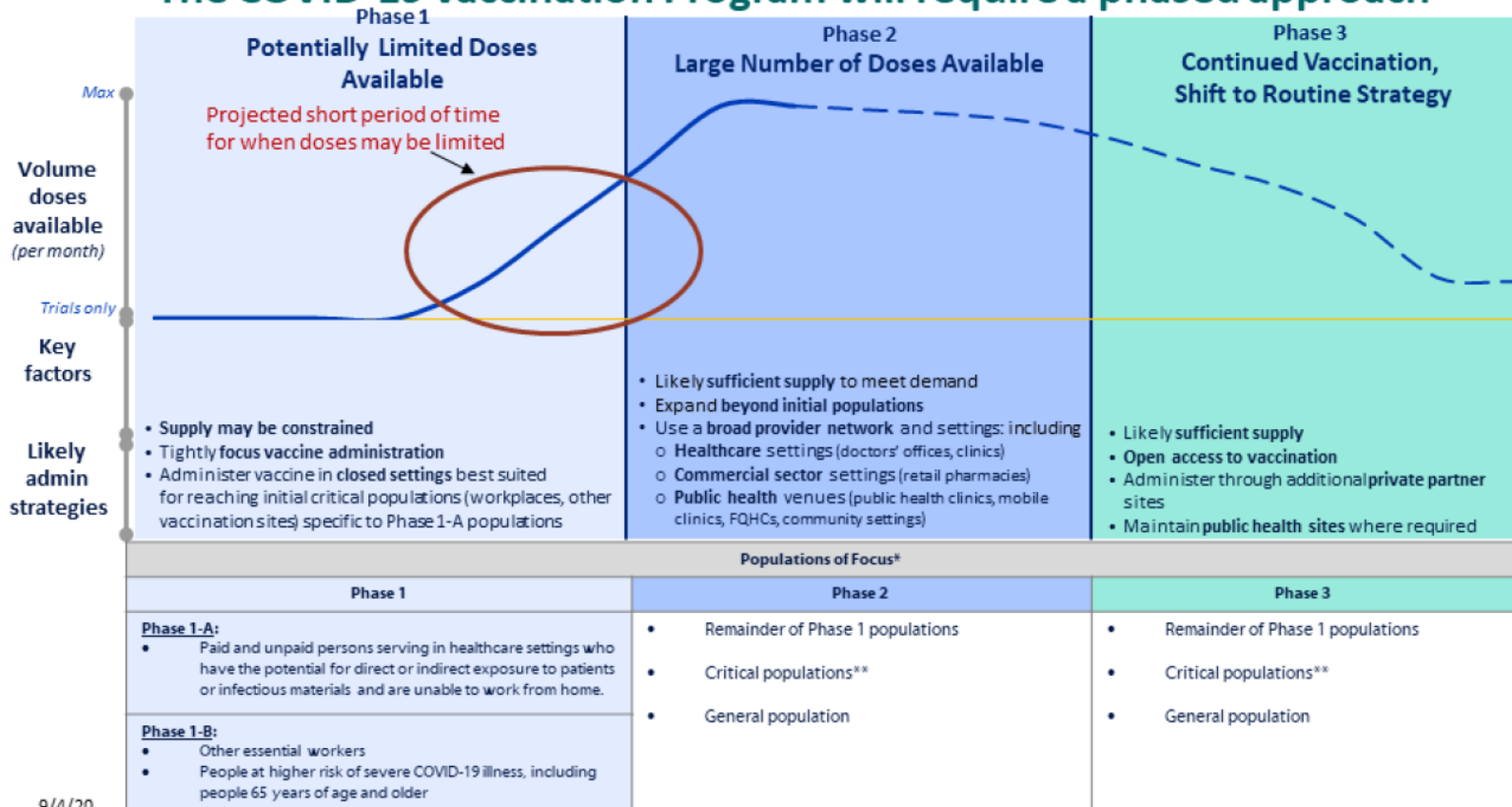
\*Publicly reported information. Subject to change.

# Selected COVID-19 Vaccines Most Likely for U.S. Market

	Moderna	BioNTech with Pfizer
Phase 3 studies vaccine vs saline efficacy studies (VE) - announcements of <b>preliminary results</b> – symptoms plus PCR confirmed infection	94.5%	95%
Safety	Most AE mild to moderate. Grade 3: fatigue 9.7%, muscle ache 8.9%, joint pain 5.2%, headache 4.5%, pain 4.1%	Most AE mild to moderate. Grade 3 that were 2% or greater: fatigue 3.8%; headache 2.0%.
VE vs severe illness	100% (placebo 11 cases, vaccine 0 cases)	Of 10 severe cases in study participants, 9 received placebo, 1 received vaccine.

\*Publicly reported information. Subject to change.

# The COVID-19 Vaccination Program will require a phased approach



9/4/20

*\*Planning should consider that there may be initial age restrictions for vaccine products.*

*\*\*See Section 4: Critical Populations for information on Phase 1 subset and other critical population groups.*

# CDC/ACIP Discussions on Prioritization, October 30, 2020

Ethical principles updated to actionable phrases and folded fairness into justice. CDC/ACIP COVID-19 Vaccine Program Goals revised.

- Goals

- Ensure safety and effectiveness of COVID-19 vaccines
- Reduce transmission, morbidity, mortality of COVID-19 disease
- Help minimize disruption to society and economy, including maintaining healthcare capacity
- Ensure equity in vaccine allocation and distribution

- Ethical principles

- Maximize benefits and minimize harms
- Promote Justice
- Mitigate Health Inequities
- Promote Transparency

# Idaho COVID-19 Vaccine Program Goals - FINAL

- Reduce transmission, severe illness and death
- Preserve functioning of healthcare system
- Recover functioning of society and the economy
- Protect persons at risk who have access and functional needs
- Ensure equitable distribution within groups prioritized for vaccination phases and equity in the opportunity for health and well-being
- Ensure transparency regarding vaccine decision-making

# Groups for Consideration for COVID-19 Vaccination Phase 1b

Major Categories	Population Estimate <sup>1</sup>	Assumptions / Caveats
Adults 65 years and older	~280,000	Includes LTCF residents
Adults 18-64 with $\geq 1$ high risk condition	~371,000	Assumes 35% have $\geq 1$ high risk condition
Essential workers not in phase 1a	~450,000	Assumes ~24% of all essential workers are HCP based on CDC estimates of 21M HCP and 87M total essential workers. And Idaho estimate of 106-116K HCP
Essential workers not in phase 1a that have a high risk condition	~157,500	Assumes 35% with $\geq 1$ high risk condition

1. Population sizes are estimates and groups not mutually exclusive

[https://www.cdc.gov/mmwr/volumes/69/wr/mm6936a3.htm?s\\_cid=mm6936a3\\_w](https://www.cdc.gov/mmwr/volumes/69/wr/mm6936a3.htm?s_cid=mm6936a3_w)

# Critical Infrastructure Sectors

- Non-HCP Critical Infrastructure Personnel Highlighted by ACIP
  - Corrections
  - Food processing
- Other Critical Infrastructure Sectors
  - Education – includes daycare
  - Chemical
  - Commercial facilities
  - Communications
  - Critical Manufacturing
  - Dams
- Other CI, cont.
  - Defense industrial base
  - Emergency Services (law enforcement, child protective services, etc.)
  - Energy
  - Financial services
  - Government
  - Information technology
  - Nuclear reactors, materials, and waste
  - Transportation systems
  - Water and wastewater systems



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# Idaho Interim Population Estimates For Phase 1b Vaccination

Updated 11/18/2020

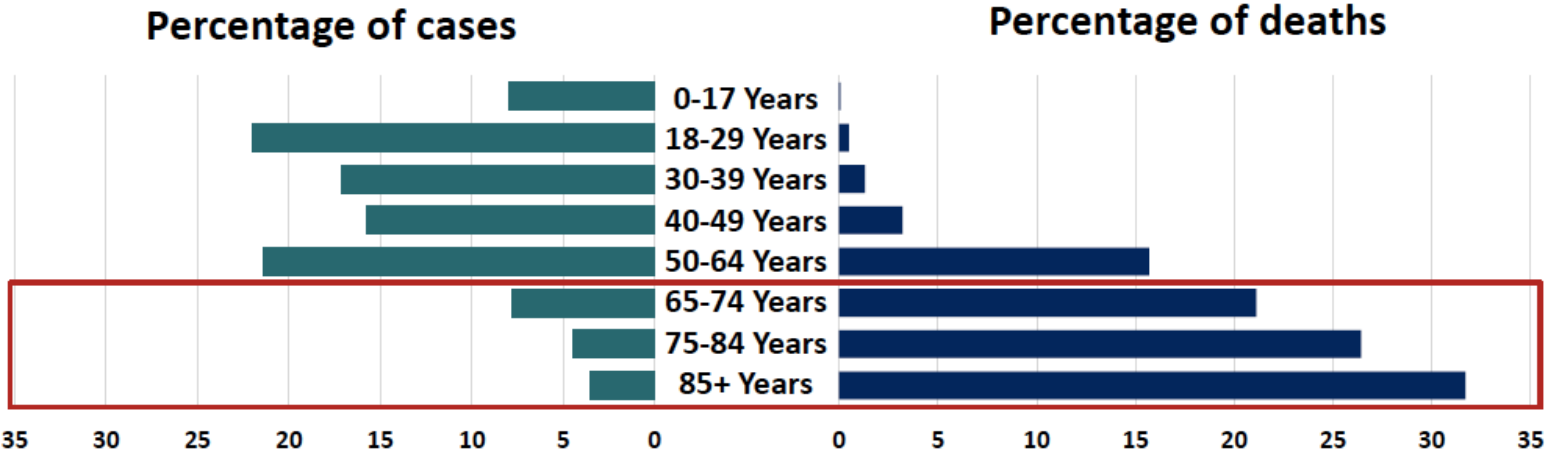
Group	Population Estimate	Source
Residents of LTCF	~12,223	IDLC
Adults age 65+ years, living in community	~266,059	BVRHS: adults 65+ minus LTCF estimate
Adults 18–64 years with high risk condition	~371,127	Assumes 35% of n=1,060,364 adults age 18–64 yrs have 1+ HR condition
Adults 50–64 years	~317,334	Includes w/ & w/o HR conditions
First responders (not including EMS in Phase 1a) and safety (fire/police/protective services/community support)	~22,231	BLS 2019 and Idaho Commission on Aging Annual Report (n=17 APS staff)
Teachers (includes daycare)	~26,800	Includes substitute teachers (n=5570) BLS
Food processing workers	~35,694	BLS/Other
Grocery store/convenience store workers	~29,100	BLS
Idaho National Guard	~5,578	DOD Defense Manpower
Correctional/detention facility staff (not including medical staff in Phase 1a)	~3,071	IDOC/IDJC/Idaho Sheriff's Association/county juvenile detention centers
Other essential workers not already included and unable to telework	In progress	BLS/IDL

# Interim Estimates of Other Idaho Populations to Consider

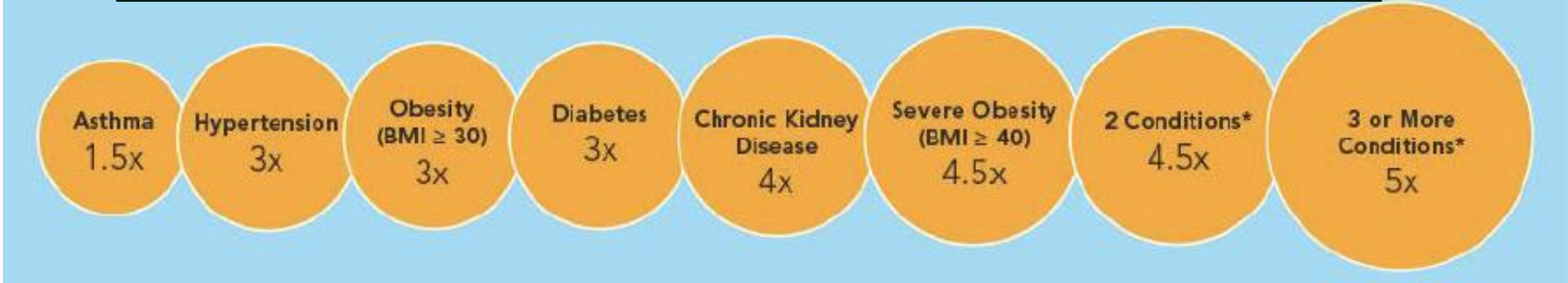
Updated 11/18/2020

Group	Population Estimate	Source
Incarcerated persons (correctional & detention facilities )	~13,050 (adults) ~336 (juveniles)	ID Dept Corrections/Juvenile Corrections, county juvenile detention facilities (small underestimate)
People living in migrant housing	~18,082	Peak migrant workforce, U Idaho Extension
Homeless persons	~4,628	50% of annual estimate (for 6 mos campaign) Idaho Housing and Finance Association, 2019 State of Homelessness in ID report
Family caregivers of persons at high risk	~83,000 –286,453	Idaho Commission on Aging estimates of 83,000 voluntary caregivers provided respite services. BRFSS 2015 caregiver % by age group applied to 2019 population.
Persons in high risk groups based on race/ethnicity (disproportionately among essential workers)	~325,473	American Indian/Alaska Native non-Hispanic; Black non-Hispanic; Hispanic/Latino, Asian/Pacific Islander IDHW BVRHS, Census Population Estimate July 2019
Adults with conditions that might put them at increased risk	~929,331	Multiple data sources; overestimate as conditions might overlap. Includes pregnant women.
People with disabilities	~241,391	Civilian noninstitutionalized population, ACS

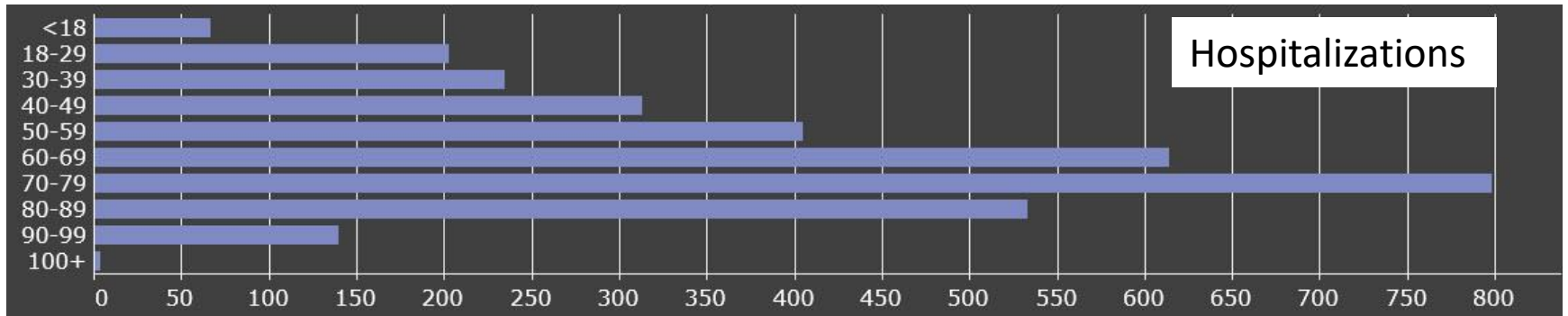
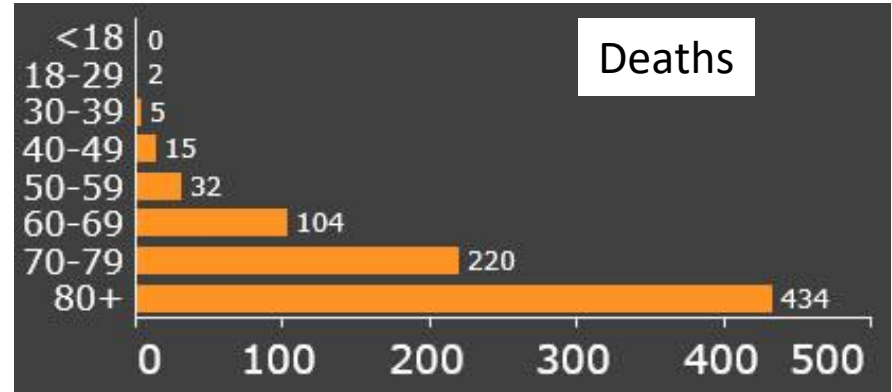
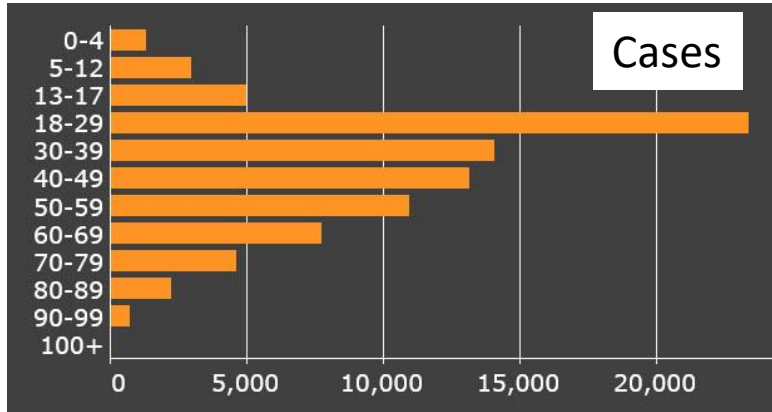
In the United States, adults aged 65 years or older represent 16% of COVID-19 cases, but nearly 80% of COVID-19 deaths



Chronic Conditions Increased risk of being hospitalized with COVID



# Cases, Hospitalizations and Deaths by Age Group, Idaho Through November 17, 2020



## Idaho Relative Ratios of Hospitalizations and Deaths per 100,000 Population by Age Group (sources US Census and Coronavirus.Idaho.gov Nov 17, 2020)

Age Group	Hospitalizations per 100,000 population	Hosp Risk Relative to 18-29 yrs	Deaths per 100,000 population	Death Risk Relative to 18-29 yrs
80+	1094.4	15.4	701.6	1169.3
70-79	609.5	8.6	168.0	280.0
60-69	297.0	4.2	50.3	83.8
50-59	194.2	2.7	15.3	25.5
40-49	147.8	2.1	7.1	11.8
30-39	100.8	1.4	0.6	1
18-29	71.0	comparison	0.6	comparison
0-17	14.9	0.2	0.0	<1

# CDC: Risk of Hospitalization and Death Among Hospitalized by Age Group Relative to Persons Age 18-29 Years

<u>Age Group</u>	<u>Hospitalization<sup>1</sup></u>	<u>Death<sup>2</sup></u>
0-4 years	4x lower	9x lower
5-17 years	9x lower	16x lower
18-29 years	Comparison Group	Comparison Group
30-39 years	2x higher	4x higher
40-49 years	3x higher	10x higher
50-64 years	4x higher	30x higher
65-74 years	5x higher	90x higher
75-84 years	8x higher	220x higher
85+ years	13x higher	630x higher

## CDC: Risk of Hospitalization by Race and Ethnicity Relative to Non-Hispanic White

	Non-Hispanic American Indian or Alaska Native	Non-Hispanic Black	Hispanic or Latino	Non-Hispanic Asian or Pacific Islander	Non-Hispanic White
Age Group	Rate Ratio	Rate Ratio	Rate Ratio	Rate Ratio	Rate Ratio
0—17 years	3.3	5.1	7.0	2.0	1
18—49 years	7.6	5.3	7.7	1.6	1
50—64 years	5.6	4.7	5.4	1.5	1
65+ years	2.4	3.4	2.6	1.1	1
Overall rate (age-adjusted)	4.3	4.2	4.4	1.3	1



# Ethics and Moral Dilemmas

- ❑ **Are there right answers to be found?**
- ❑ **How do we cope and decide when all the options are bad?**
- ❑ **Ethical Decision Making Requires:**
  - Facts
  - Values
- ❑ **We need to concentrate on clarifying the values (priorities) and not on trying to get the right answers**

# Priorities

- All decisions must
  - Ensure equity and be transparent
- Which do we do FIRST
  - Recover functioning of society and the economy
  - Reduce transmission, severe illness and death
  - Preserve functioning of healthcare system
  - Protect persons at risk

## Populations for Consideration and DRAFT Degrees with Which Vaccinating Group Aligns Different Goals

Group	Frequent exposed to high # people	Inability to socially distance /limited PPE	Work impacts large segment of society	Risk of severe illness/death	Access and / or equity issues	Preserves functioning of HC System
Residents of LTCF						
Adults age 65+ years, living in community						
Adults 18–64 years with high risk condition						
Adults 50–64 years						
First responders and safety (e.g., protective services)						
Teachers (K-12 + daycare)						
Food processing workers						
Grocery /convenience store workers						
Idaho National Guard						
Correctional/detention facility staff (non-HCP)						
Other essential workers not already included and unable to telework						

**EXAMPLE ONLY**

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Correctional/detention facility staff (non-HCP)						
Other essential workers not already included and unable to telework						

## Populations for Consideration and DRAFT Degrees with Which Vaccinating Group Aligns Different Goals

Group	High # persons exposed to	Inability to socially distance	Work role impacts society	Risk of severe illness/death	Access and / or equity issues	Preserves functioning of HC system
Incarcerated persons						
People living in migrant housing						
Homeless persons						
Family caregivers of persons at high risk						
Racial/ethnic grps at increased risk						
Adults with conditions that might put them at increased risk						
People with disabilities						

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Racial/ethnic grps at increased risk						
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People with disabilities						



# Discussion

- Recognizing these decisions are very difficult, keep in mind that vaccine supply will continue to expand through the next several months, ultimately allowing all persons to receive vaccine who want to be vaccinated
- Considering CDC goal, how can we best maximize benefits and minimize harms?
- Considering the Idaho COVID-19 vaccination goals and principles, what additional information would be helpful to prioritize among phase 1b groups?
- Are there goals or principles that should be weighted more heavily than others?
- Are there risks (e.g., of exposure or severe disease or risk to society) that should be weighted more heavily than others?
- What formats would help you with considering prioritization, e.g., grids by group and vaccination program goal or other format?



# Thank you

- CDC's Advisory Committee on Immunization Practices meets Nov. 23
  - Members will be forwarded available materials and a summary from that meeting
- Committee is asked to submit comments regarding
  - What additional information would be helpful to sub-prioritize among phase 1b groups?
  - Are there goals or principles that should be weighted more heavily than others and why?
  - Are there risks (e.g. exposure or severe disease) that should be weighted more heavily than others and why?
  - Are there methods you would prefer to use to get input from the committee – e.g., grids with scores, weighting of importance of goals, other methods
- The public is invited to submit written comments on COVID-19 vaccine prioritization through designated email address  
[covid19vaccinepubliccomment@dhw.idaho.gov](mailto:covid19vaccinepubliccomment@dhw.idaho.gov)

# EXTRA

- Review of HCP groups and population estimates
- Review of NMA Framework and Prioritization

# Healthcare Personnel Sub-prioritization Groups — Interim Population Estimates

Category	Estimated No. Persons	Cumulative No. Persons
Hospital and clinic staff essential for care of COVID-19 patients and maintaining hospital capacity.	~32,350 = hospital staff (IDLC)	32,350
<ul style="list-style-type: none"> <li>LTCF staff, including adult protective services, ombudsmen, contract staff</li> <li>Home care providers for adults age 65 years and other adults and children with high risk medical conditions.</li> </ul>	~14,800–24,279 LTCF staff (BLS vs IDLC) ~16,260 home health/personal care aides (IDL)	63,410 – 72,889
Emergency medical services (EMS)*	~5,115 (IDHW Bureau of EMS & Preparedness)	68,525 – 78,004
Outpatient and inpatient medical staff not already included in earlier groups who are unable to telework, including HCP in correctional and detention facilities	~26,340 outpatient, excluding home health above (BLS) ~400 corrections/detention HCP (IDOC/IDHW)	95,265 – 104,744
<ul style="list-style-type: none"> <li>Pharmacists, pharmacy technicians, and pharmacy aides not already included in earlier groups</li> <li>Dentists, dental hygienists, and dental assistants</li> </ul>	~4,893 pharmacy staff (IBOP) ~5,064 dental staff (ID State Dental Assoc)	105,222 – 114,701
Public health and emergency management response workers who are unable to telework†	~782 public health (PHDs, IDHW) ~88 emergency management (BLS)	106,092 – 115,571

\*Includes all licensed EMS providers regardless of affiliation

†Frontline PHD staff, essential function IDHW staff; assumes 50% emergency management staff unable to telework

Abbreviations: BLS=Bureau of Labor Statistics; IBOP=Idaho Board of Pharmacy; IDL=Idaho Dept. of Labor; IDLC=Idaho Division of Licensing and Certification; IDHW=Idaho Dept Health & Welfare; IDOC= Idaho Dept of Corrections; LTCF=skilled nursing, assisted living, and intermediate care facilities; PHD=public health district

Updated 11/18/2020

# National Academy of Medicine Framework For Equitable Allocation of COVID-19 Vaccine

- Phase 1a. High-risk health workers (e.g., in hospitals, nursing homes, or providing home care) – those involved in direct patient care.
  - Specifically includes workers who provide transportation, environmental services, and others who risk exposure to bodily fluids or aerosols.
- Phase 1a. First responders

# National Academy of Medicine Framework For Equitable Allocation of COVID-19 Vaccine

- Phase 1b.
  - Older adults living in congregate settings—such as nursing homes or skilled nursing facilities—and other similar settings.
  - Individuals with select high-risk comorbid and underlying conditions
- Phase 2
  - K-12 teachers and school staff
  - Other workers in essential industries
  - Older adults
  - Adults with high risk conditions
  - Persons living in congregate settings and staff (corrections, group homes, homeless shelters)

# National Academy of Medicine Framework For Equitable Allocation of COVID-19 Vaccine

- Phase 3 – broad immunization of other workers, young adults and children (if vaccines tested in children)
- Phase 4 – persons interested in vaccination for their personal protection