

A Look at One Framework: Vaccines

Ineligible for Vaccines

- Naturally immunity
- Medical contraindications
- Unacceptable vaccine response
- Imminently and irreversibly dying
- Satisfactory alternative protections

Vaccine Framework

- Vaccines will be unavailable in 1st wave
- Prioritization specifies the sequence in which groups receive vaccine

Strategies:

2 Parallel Tracks with 6 Tiers

	Track A: Key Workers	Track B: General Public
Tier 1	+	
Tier 2	+	+
Tier 3	+	+
Tier 4		+
Tier 5		+
Tier 6		+

Strategies: Tiers 1 & 2

	Track A: Key Workers	Track B: General Public
Tier 1	Key workers at <i>disproportionately high</i> occupational exposure to flu	None
Tier 2	Key workers <ul style="list-style-type: none">•at <i>high</i> occupational exposure; or•at <i>high</i> risk of flu-related mortality/ morbidity; and•with <i>good</i> vaccine response	Groups, if any: <ul style="list-style-type: none">•at <i>disproportionately high</i> risk of flu-related mortality/morbidity and•with <i>good</i> vaccine response

Strategies: Tier 3

	Track A: Key Workers	Track B: General Public
Tier 3	<ul style="list-style-type: none">• Irreplaceable key workers with <i>good</i> vaccine response.&• Groups of key workers:<ul style="list-style-type: none">• at <i>high</i> risk of transmitting flu to people best protected indirectly and• with <i>good</i> vaccine response	<p>Groups:</p> <ul style="list-style-type: none">• at <i>high</i> risk of flu-related mortality and morbidity and• with <i>good</i> vaccine response

Strategies: Tier 4

	Track A	Track B
Tier 4	None	<p>Groups:</p> <ul style="list-style-type: none">•at <i>high</i> risk of flu-related mortality and morbidity and•with acceptable vaccine response <p>Possibly groups of children:</p> <ul style="list-style-type: none">•at <i>moderate</i> risk of flu-related mortality and morbidity and•with <i>acceptable</i> vaccine response

Strategies: Tiers 5 & 6

	Track A:	Track B:
Tier 5	None	Groups of adults: <ul style="list-style-type: none">•at <i>moderate</i> risk of flu-related mortality and morbidity and•with <i>acceptable</i> vaccine response
Tier 6	None	General population

Vaccine Framework: Fit with Feds?

- 2005 HHS guidance for *moderate* pandemic
- Proposed federal guidance for severe pandemic:
 - Multiple goals and tracks
 - Protects infrastructures
 - Prioritizes children before adults in some circumstances
 - Attends less to differences in response and availability of alternative protections
 - Attends to homeland security and national defense goals

Antiviral Frameworks: Highlights

- Many unknowns re: efficacy, dosing
- Used for treatment (MAYBE sufficient for wave 1?)
- Used for prevention
 - Post-exposure prophylaxis (scarce supply)
 - Outbreak prophylaxis (scarce supply, reserve for key workers at disproportionately high occupational exposure for 8-12 weeks)

N95 Framework: Highlights

- First ethical guidance on PPEs
- Supply extremely scarce
- Prioritize key workers:
 - Highest occupational exposure
 - Irreplaceable
- Prioritize general population:
 - Groups exposed to contained disease cluster
 - Pregnant women, immune-compromised

Mask Framework: Highlights

- First ethical guidance on masks
- Prioritize access by infectious people posing risk of transmission to others
- As last resort, consider prioritizing healthy key workers who lack other protection

Ventilator Framework: Highlights

- Applies to non-infant, acute-care vents
- 2 goals do not apply
 - Reduce disruption to infrastructures
 - Reciprocate to groups accepting high risk in the service of others
- Strategies developed in coordination with MDH's Science Advisory Team

Ventilator Framework: Highlights

- Does not prioritize key workers
 - Vents don't protect infrastructures
 - Key workers would need entire supply—not enough vents to go around
 - Reciprocity obligations already met—key workers prioritized for:
 - N95s
 - PEP antivirals
 - Treatment antivirals
 - Outbreak antivirals (critical care workers who intubate flu patients)
 - Vaccines

Ventilator Framework: Highlights

- Access to ventilator trials
- Remove patients to make ventilator available to patients more likely to benefit
- Consider prioritizing person who is younger by $> X$ years when more than 1 person with equal need and likelihood of benefit.