Build A Vaccine

Teams must assemble a vaccine by choosing a target pathogen, a vaccine type, a delivery method, a population, and a key message for encouraging vaccination. Teams have 10 minutes to create a pitch for a panel of "investors".



INTERNATIONAL INFECTION PREVENTION WEEK 2026

Past. Present. Protected.

PATHOGEN CARDS

Generations of Infection Prevention

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Superbug Sam

Pathogen Type: Antibiotic-resistant bacteria
Causes:
- Healthcare-associated infections
- Surgical site infections
- Bloodstream infections

Challenge: Many antibiotics no longer work.
Your Mission: Develop a vaccine that prevents infections before they start.

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RSV Rex

Pathogen Type: Respiratory Syncytial Virus (RSV)
Causes:
- Severe respiratory illness
- Infant hospitalizations
- Older adult complications

Challenge: Many people underestimate the risk.
Your Mission: Protect vulnerable populations.

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Flu Flo

Pathogen Type: Influenza virus
Causes:
- **Seasonal outbreaks**
- **Missed work and school**
- **Hospitalizations**

Challenge: The virus changes every year.
Your Mission: Convince people to get vaccinated annually

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COVID Carl

Pathogen Type: Coronavirus
Causes:
- **Respiratory illness**
- **Community outbreaks**

Challenge: Vaccine fatigue and misinformation.
Your Mission: Increase community confidence in vaccination.

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Past. Present. Protected.



Norovirus Nora

Pathogen Type: Norovirus
Causes:
- Gastrointestinal outbreaks
- Nursing home and cruise ship outbreaks

Challenge: Spreads rapidly.
Your Mission: Vaccinate to stop outbreaks before they begin.

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Measles Max

Pathogen Type: Measles virus
Causes:
- Highly contagious disease
- Community outbreaks

Challenge: Declining vaccination rates.
Your Mission: Improve vaccine uptake.

VACCINE TECHNOLOGY CARDS

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mRNA Vaccine

Strengths
- Rapid development
- Strong immune response

Weaknesses
- Cold storage needs

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Live Attenuated Vaccine

Strengths

·Long-lasting immunity

Weaknesses

·Not ideal for some immunocompromised patients

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Protein Subunit Vaccine

Strengths
- Well-established technology
- Strong safety profile

Weaknesses
- May require booster doses

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Inactivated Vaccine

Strengths

·Traditional technology

·Stable storage

Weaknesses

·May require multiple doses

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Viral Vector Vaccine

Strengths
- Strong immune response

Weaknesses
- Public acceptance concerns

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DELIVERY METHOD CARDS

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Traditional Injection

Pros

- Familiar
- Widely available

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Nasal Spray

Pros

- Needle-free
- Easy administration

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Oral Vaccine

Pros

- Easy distribution
- Patient-friendly

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Microneedle Patch

Pros

- Simple administration
- Potential self-application

POSSIBLE ADD-ONS

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Mobile Vaccination Clinic

Pros

•Brings vaccines directly to communities

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Pharmacy-Based Delivery

Pros

- Convenient Access

PATIENT POPULATION CARDS

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Nursing Home Resident

Goal: Protect older adults at highest risk.

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Healthcare Workers

Goal: Reduce transmission in healthcare settings.

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Immunocompromised Patients

Goal: Protect vulnerable populations.

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International Travelers

Goal: Prevent disease spread across borders.

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Infants & Young Children

Goal: Prevent severe disease early in life.

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Pregnant Individuals

Goal: Protect parent and baby.

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College Students

Goal: Prevent outbreaks in congregate settings.

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Rural Communities

Goal: Improve vaccine access.

SCENARIO CARDS

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Scenario 1

A social media rumor claims your vaccine causes serious side effects.
How will you address concerns?

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Scenario 2

Your target population has low trust in healthcare institutions.
How will you build confidence?

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Scenario 3

A competitor has launched a cheaper vaccine.
Why should investors support yours?

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Scenario 4

Your vaccine must reach remote communities.
How will you distribute it?

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Scenario 5

Vaccination rates have dropped by 20%.
How will you increase uptake?

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Scenario 6

A disease outbreak is spreading rapidly.
How will your vaccine help control it?

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Scenario 7

Funding is limited.
How will you maximize impact?



KEY MESSAGE WORKSHEET

COMPLETE YOUR CAMPAIGN MESSAGE

Our vaccine protects against:

Our target population is:

Our vaccine technology is:

Our delivery strategy is:

In one sentence, why should people get this vaccine?

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INVESTOR PITCH WORKSHEET

VACCINE VENTURE CHALLENGE

Team Name:

Our Vaccine Name:

Problem We Are Solving:

Our Solution:

Why It Matters:

Why Investors Should Support Us:

One-Sentence Elevator Pitch:



INVESTOR SCORING SHEET

Team Name:

Score each category from 1-5.

Category	Score
Creativity	
Scientific Reasoning	
Public Health Impact	
Feasibility	
Persuasiveness	
Teamwork	

Total Score: _____ / 30

Bonus Award Categories

- **Most Innovative Vaccine**
- **Best Public Health Impact**
- **Best Marketing Campaign**
- **Best Scientific Argument**
- **People's Choice Award**

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