

**Developing COVID-19 Vaccines in Record Time**  
National Adult and Influenza Immunization Summit • 2019 Virtual, Moderna

- Welcome – LJ Tan (IAC)
- Introductions – Phyllis Arthur (BIO)
- Presentations
  - Laurent M. Humeau, PhD**, Chief Science Officer and EVP of Research, Engineering and Clinical Developments, Inovio
  - Macaya Doucougou, MD, MPH**, Head of Clinical Development, Janssen Vaccines
  - Mike Watson, MD**, Consultant, Vaccines and Infectious Diseases, Moderna
  - Greg Glenn, MD**, President, Research and Development, Novavax
  - Philip Dormitzer, MD, PhD**, VP and Chief Scientific Officer, Viral Vaccines, Pfizer
  - Clement Lewin, PhD, MBA**, Associate Vice President, Head BARDA Office & NV Stakeholder Engagement, Sanofi Pasteur

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### COVID-19 US Vaccine Introduction Overview

**Initial Response**  
2020-2021

**Distribution (H1N1 assumption)**

- Like H1N1, HHS will purchase doses and direct distribution from manufacturer to PODS (Point of Deliver System)
- Additional providers added with capacity and uptake
- Demand anticipate very high to start then likely wane over time

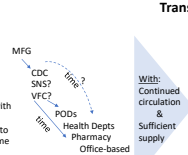
**Prioritization**  
Assumptions: Directed by CDC/ACIP, HHS/NVAC, Initially indicated for 18yrs +




**Transition to Routine?**  
2022-? forward

Routine immunization based on ACIP guidance developed from Evidence to Recommendation (ETR) process using:

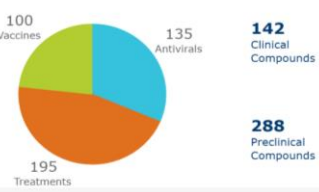
- Epidemiology
- Safety
- Efficacy
- Duration of Immunity – natural & conferred
- HEOR
- Consumer interest



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**430** Unique Compounds in Development



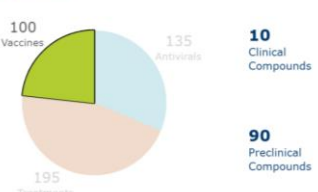
100 Vaccines, 135 Antivirals, 195 Treatments, 142 Clinical Compounds

[bio.org/covidpipelinetracker](https://bio.org/covidpipelinetracker)

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**100** Unique Compounds in Development

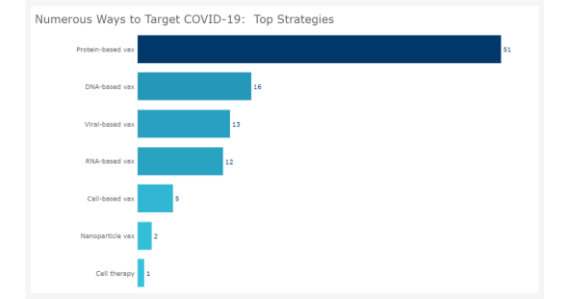


100 Vaccines, 135 Antivirals, 195 Treatments, 10 Clinical Compounds

**90** Preclinical Compounds

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### Numerous Ways to Target COVID-19: Top Strategies



Strategy	Count
Protein-based vax	51
DNA-based vax	16
Viral-based vax	13
RNA-based vax	12
Cell-based vax	5
Nanoparticle vax	2
Cell therapy	1

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