NVX-CoV2373 (Novavax COVID-19 Vaccine) in Adults (≥ 18 Years of Age)

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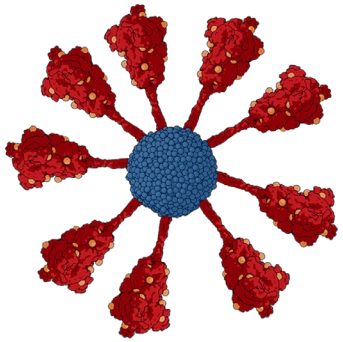
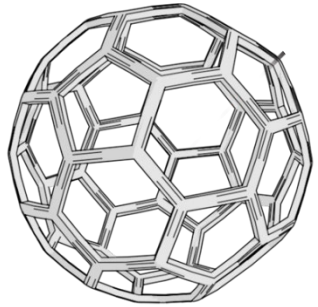
Advisory Committee on Immunization Practices (ACIP)
July 19, 2022

Novavax Vaccine Platform
Recombinant Protein Plus Matrix-M™

Recombinant protein



Matrix-M adjuvant



Novavax vaccine platform

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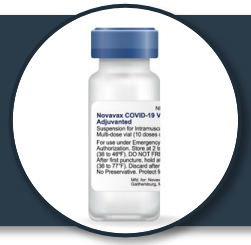
NVX-CoV2373 Vaccine Presentation and Storage Supports Access and Ease of Use



Presentation

- 10-dose vials
- Preservative-free

Transportation & Storage

- Stable at 2 to 8°C

Dose Level & Regimen

- 5 µg antigen + 50 µg Matrix-M
- 2 doses given 3 weeks apart
- 0.5 mL intramuscular injection

Authorized US Indication

- ≥ 18 years of age

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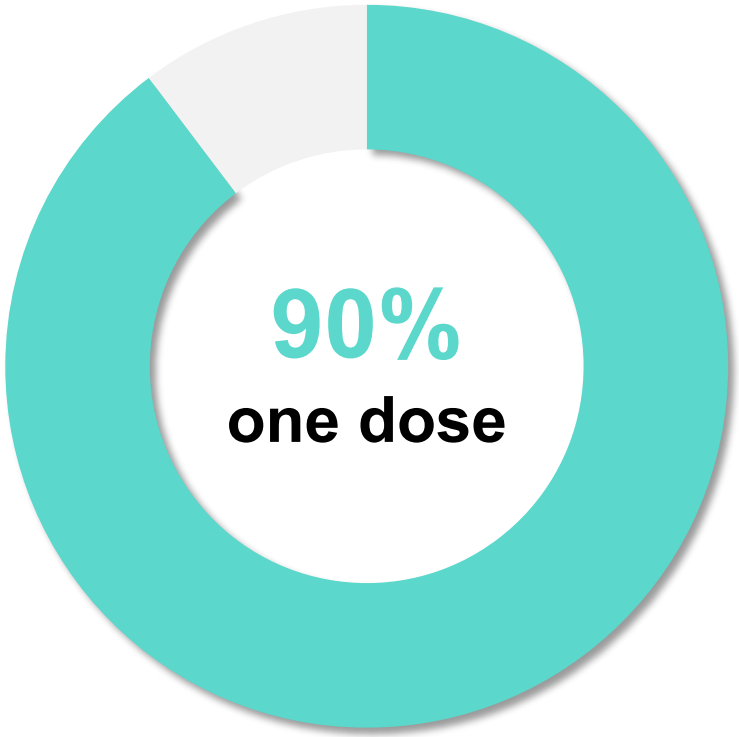
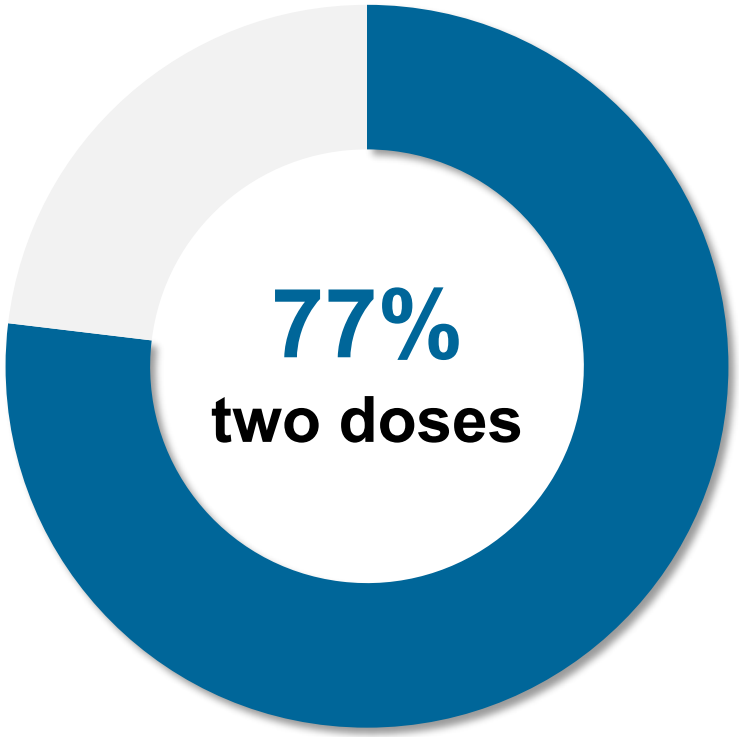
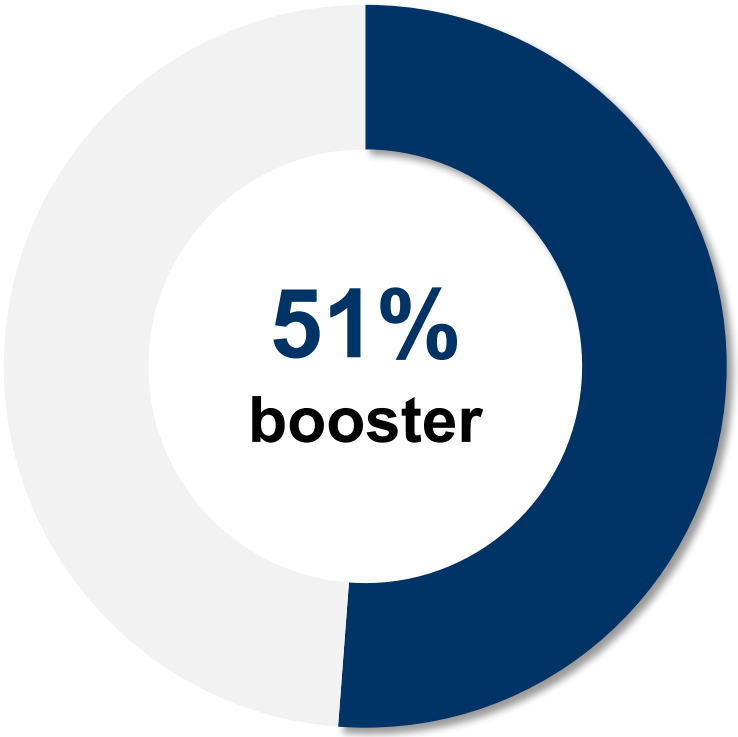
Percentage of Eligible Vaccinated Americans ≥ 18 Years of Age







CDC, July 7, 2022

NVX-CoV2373 Robust Clinical Development Program

PHASE 1-2
Study 101 (US/AU)

N = 131 (Ph. 1)
N = 1,288 (Ph. 2)

Keech et al., NEJM, 2020; Formica et al., PLoS Medicine, 2021

- Established dose level in younger and older adults
- Confirmed need for adjuvant and 2 dose schedule
- Defined immunologic phenotype
- Assessed preliminary safety profile

PHASE 2a/b
Study 501 (ZA)

N = 4,419

Shinde et al., NEJM, 2021

- Evaluated preliminary efficacy
- Defined safety profile
- Included participants with HIV

PHASE 3
Study 302 (UK)

N = 15,187

Heath et al., NEJM, 2021; Toback et al., The Lancet Res Med, 2021

- Established safety profile
- Established efficacy
- Evaluated safety with influenza vaccine

PHASE 3
Study 301 (US/MX)

Adults
N = 29,945

12 to < 18 years
N = 2,247

Dunkle et al., NEJM, 2021

- Established safety profile in US population
- Established efficacy in US population

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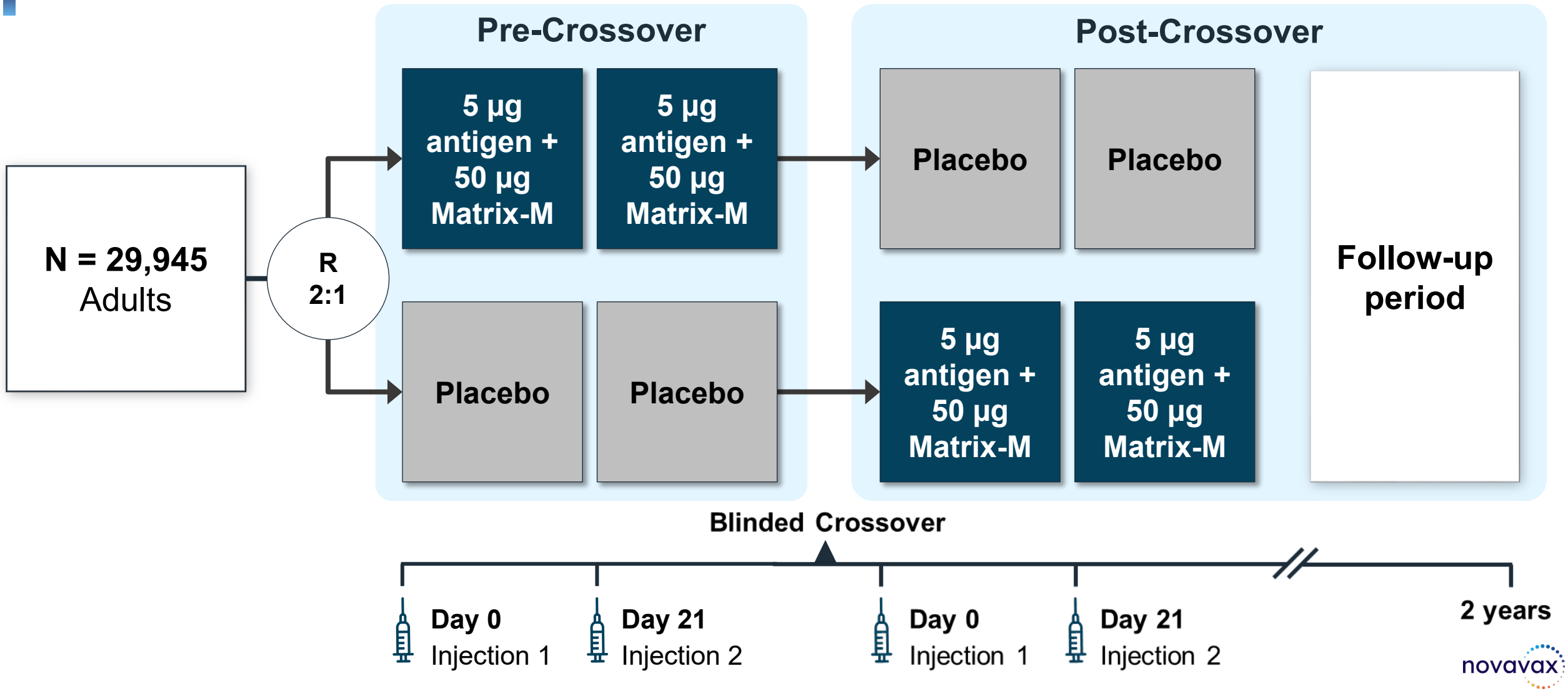
High Levels of Protection Achieved in Two Phase 3 Trials with NVX-CoV2373

	Study 302 UK[1]	Study 301 US/MX[2]
Overall (Mild, Moderate, Severe)	90%	90%
Severe	*All 5 cases in placebo group*	100%
Against Vol and VoC	86%	93%

1. Heath et al, NEJM, 2021; 2. Dunkle et al, NEJM, 2022

*Vol. = Variants of Interest and VoC = Variants of Concern in circulation at time studies were conducted

Study 301 Design



Demographics and Baseline Characteristics Well-Balanced

	NVX-CoV2373 (N = 19,735)	Placebo (N = 9,847)
US | Mexico	**94% | 6%**	**94% | 6%**
Age (years) – median (range)	**47** (18 – 95)	**47** (18 – 90)
≥ 65 years	**13%**	**13%**
Female	**48%**	**49%**
Race		
White	**75%**	**75%**
Black/African American	**12%**	**12%**
American Indian or Alaska Native	**7%**	**7%**
Hispanic/Latino	**22%**	**22%**
BMI ≥ 30 kg/m^2	**37%**	**37%**
High-risk*	**95%**	**95%**
SARS-CoV-2 seropositive	**7%**	**7%**

* Either ≥ 65 years with comorbidities or living or working conditions involving known frequent exposure to COVID-19 or densely populated circumstances

NVX-CoV2373 Provides 90% Protection from Mild, Moderate, and Severe COVID-19

100% Protection Against Moderate / Severe Disease

	NVX-CoV2373 (N = 17,272)	**Placebo** (N = 8,385)
Cases	**17 (0.1%)**	**79 (0.9%)**
Mild	*17*	*66*
Moderate	*0*	*9*
Severe	*0*	*4*
Vaccine Efficacy ***Overall***	**90%** (95% CI: 84, 94)	
Vaccine Efficacy ***Moderate/Severe***	**100%** (95% CI: 85, 100)	

Final Efficacy Analysis

Study 301 (US/MX)

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NVX-CoV2373 Efficacious Against Original Strain and Variants of Concern/Interest (VoC/VoI)

	Variants of Concern & Variants of Interest		All Other Strains	
	NVX-CoV2373 (N = 17,272)	**Placebo** (N = 8,385)	**NVX-CoV2373** (N = 17,272)	**Placebo** (N = 8,385)
Cases	**8 (< 0.1%)**	**53 (0.6%)**	**1 (< 0.1%)**	**13 (0.2%)**
Mild	*8*	*44*	*1*	*10*
Moderate	*0*	*7*	*0*	*2*
Severe	*0*	*2*	*0*	*1*
Vaccine Efficacy *Overall*	**93%** (95% CI: 86, 97)		**97%** (95% CI: 74, 100)	

Final Efficacy Analysis; sequence data not available for 21 cases (vaccine = 8; placebo = 13)

Consistent Efficacy Observed Across Subgroups

Vaccine Efficacy	NVX-CoV2373 (N = 17,272)	Placebo (N = 8,385)	Vaccine Efficacy (95% CI)
Overall	17	79	**90%** (84, 94)
White	13	59	**90%** (82, 95)
Black or African American	1	8	**94%** (51, 99)
American Indian or Alaska Native	1	6	**92%** (33, 99)
Hispanic	9	18	**77%** (49, 90)
Comorbidity, Yes	7	41	**92%** (82, 96)
≥ 65 years	2	4	**79%** (-17, 96)
18 – 64 years	15	75	**91%** (84, 95)

Study 301 (US/MX)

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Study 301 (US/MX) Efficacy Summary: High Levels of Efficacy in Preventing COVID-19

- Exhibited high level of efficacy for Variants of Concern/Interest
- Provided complete protection from moderate and severe COVID-19 in Adults
- Demonstrated consistently high efficacy across subgroups

Safety

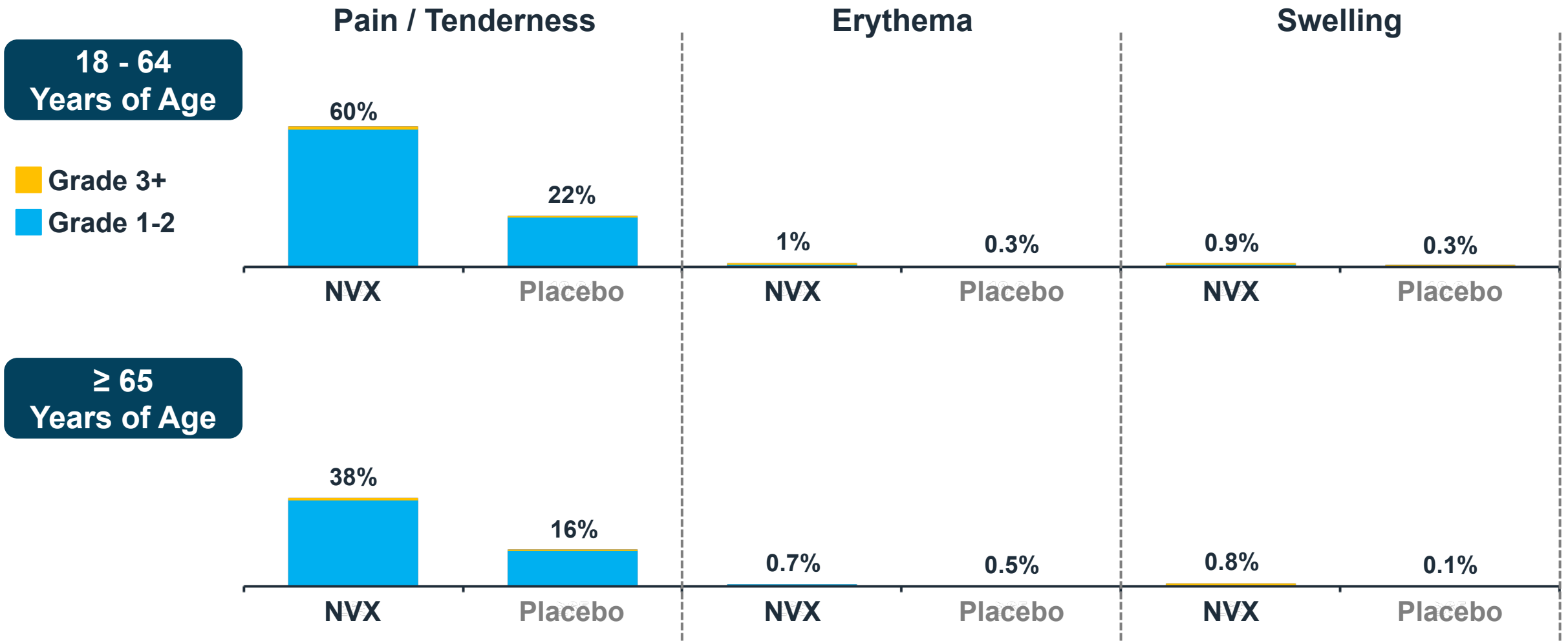
~50,000 Participants Across 4 Studies
Pooled Safety Data Set

Study (Phase)	**Country**		**NVX-CoV2373**	**Placebo**	**Total**
Total			**30,064**	**19,886**	**49,950**
301 (Phase 3)	US & Mexico	Adult	19,735	9,847	29,582
302 (Phase 3)	UK	Adult	7,575	7,564	15,139
501 (Phase 2a/b)	South Africa	Adult	2,211	2,197	4,408
101 (Phase 1/2)	US & Australia	Adult	543	278	821

Study 301 (US/MX):
Solicited Adverse Events

Collected via e-diary entries for 7 days following each vaccination

Dose 1 Local Events: Mostly Mild to Moderate, Resolved 1-2 Days



Includes events reported Day 0 to Day 6 post-vaccination; Grades based on FDA guidance

Study 301 (US/MX)

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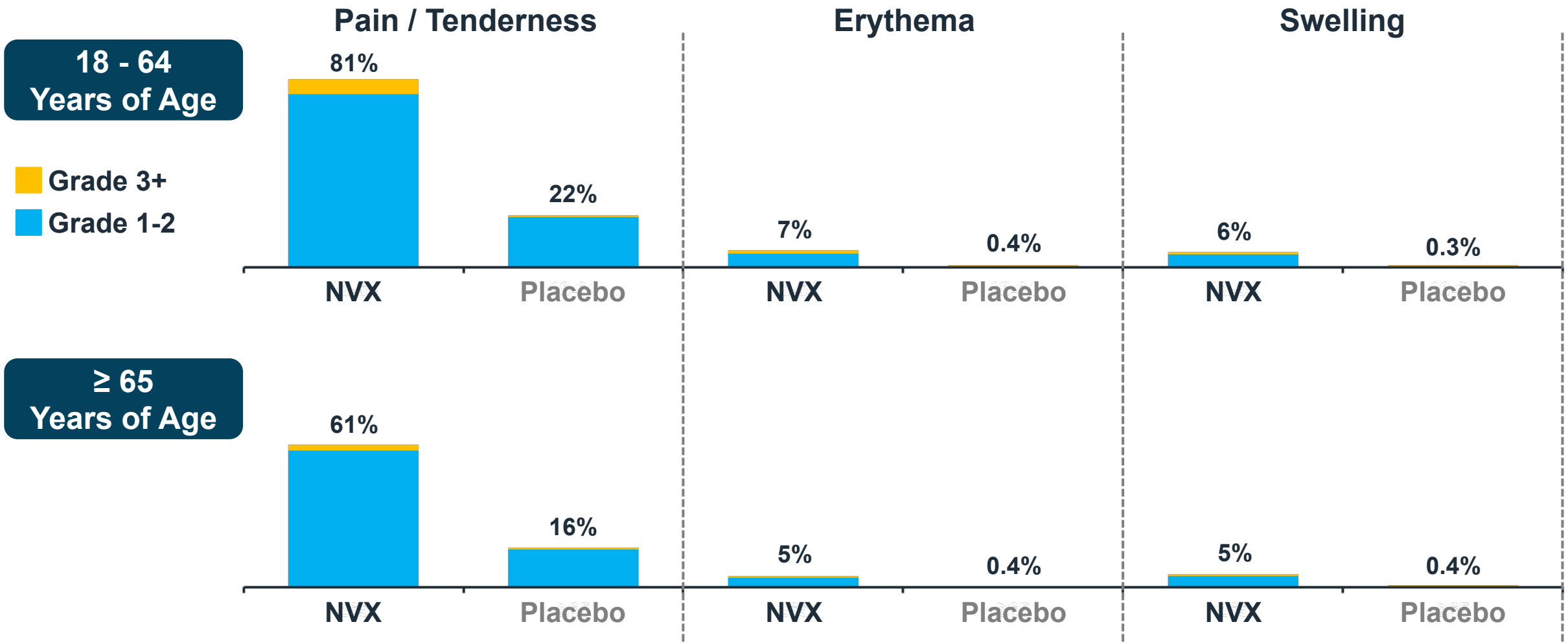
Dose 2 Local Events: Mostly Mild to Moderate, Resolved in 1-2 Days



Includes events reported Day 0 to Day 6 post-vaccination; Grades based on FDA guidance

Study 301 (US/MX)

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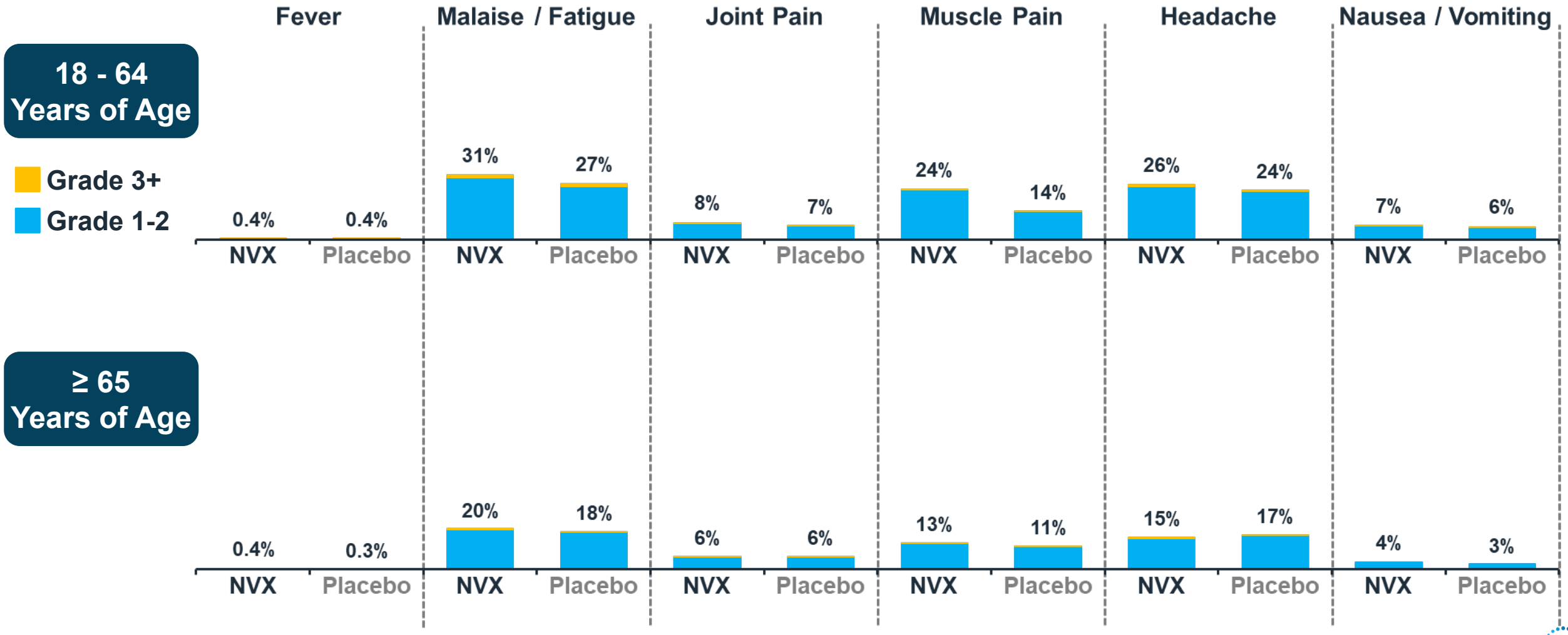
Dose 1 Systemic Events: Most Mild to Moderate, Resolved 1-2 Days



Includes events reported Day 0 to Day 6 post-vaccination; Grades based on FDA guidance

Study 301 (US/MX)

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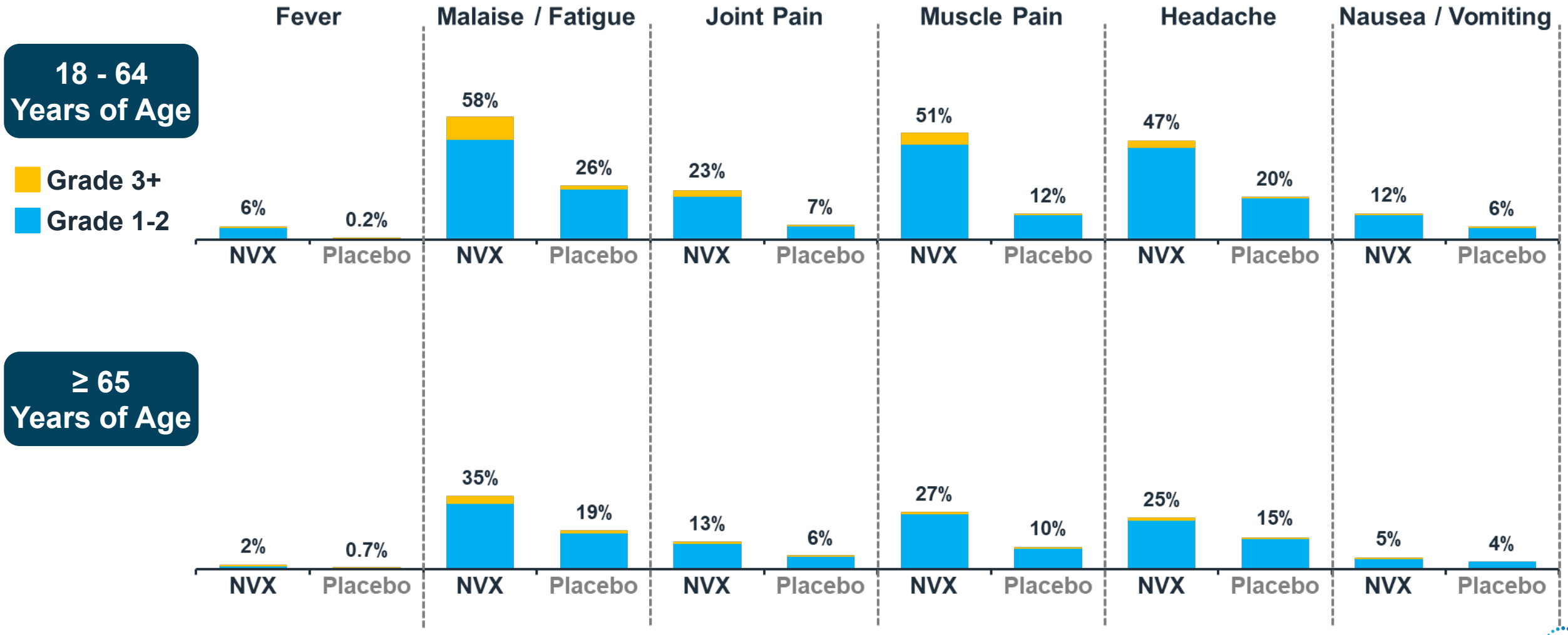
Dose 2 Systemic Events: Most Mild to Moderate, Resolved 1-2 Days



Includes events reported Day 0 to Day 6 post-vaccination; Grades based on FDA guidance

Study 301 (US/MX)

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Study 301 (US/MX): Unsolicited Adverse Events

Unsolicited AEs Comparable Between Groups

	NVX-CoV2373 (N = 19,735)	Placebo (N = 9,847)
Any unsolicited AE (non-serious)	11.6%	11.2%
Severe AE (non-serious)	0.6%	0.4%
Medically-Attended AE (MAAE)	5.8%	5.7%
Potential Immune-Mediated Medical Condition (PIMMC)	0.2%	0.2%
Serious AE (SAE)	1.0%	1.1%
Death	< 0.1%	< 0.1%

Myocarditis/Pericarditis

Myocarditis/Pericarditis Balanced During Placebo-Controlled Phase

- **Placebo-controlled phase: NVX-CoV2373: 0.007% (2 cases); PBO: 0.005% (1 case)**

Study	Treatment	Age	Sex	Time to onset	Dose	Comments
301	Placebo	31	F	72 Days	2nd	Resolved without sequelae
301	NVX-CoV2373	67	M	28 Days	1st	Severe COVID-19
302	NVX-CoV2373	19	M	3 Days	2nd	Resolved without sequelae

Post-Crossover: Myocarditis/Pericarditis Occurred Within Expected Background Rates

- **Post-crossover: Observed 3 cases/14,513 PY; expected background 1.6 – 4.6 cases[1]**

Study	Treatment	Age	Sex	Time to onset	Dose	Comments
301	NVX-CoV2373	16	M	2 Days	2nd	Viral illness, resolved without sequelae
301	NVX-CoV2373	20	M	10 Days	1st	Strep throat (ASO +), lost to follow up
302	NVX-CoV2373	60	F	8 Days	1st	Respiratory tract infection, resolved without sequelae

1. EMA ACCESS
ASO = antistreptolysin-O

Post-Authorization Myocarditis/Pericarditis

- 1,072,074 doses administered worldwide as of June 30, 2022
- Broad search safety database yielded 68 potential reports
- Reports often had limited information
- Brighton Collaborative Case definition used to evaluate reports
  - 1 met definitive case definition of myocarditis
  - 6 met probable case definition of myocarditis
  - 10 met probable case definition of pericarditis

Ongoing Myocarditis/Pericarditis Surveillance

- Myocarditis/Pericarditis: Important Risk
  - Careful monitoring post-authorization
- Targeted follow-up questionnaires
  - Brighton Collaboration case definition
- Monthly Summary Safety Reports (SSRs) submitted to Health Authorities
- Post-authorization safety studies

Clinical Development Safety Database: Important Events of Interest

- No cases of anaphylactic reactions
- No cases of Thrombosis with Thrombocytopenia (TTS)
- 1 case of neuropathy meets Brighton Collaboration case definition criteria Guillain-Barré Syndrome (GBS) *(Study 302)*

Pregnancy

Pregnancy was an exclusion criterion

Pregnancy Outcomes for Women Vaccinated with NVX-CoV2373 Across Clinical Program

	Total NVX-CoV2373 (N = 147)	Time of Vaccination in Relation to Last Menstrual Period			
		Before (N = 105)	0-30 days after (N = 22)	> 30 days after (N = 9)	Unknown (N = 11)
Pregnancy outcome	**136**	99	19	8	10
Ongoing	**56**	51	1	3	1
Live birth	**41**	24	12	3	2
Miscarriage	**25**	18	4	1	2
Voluntary termination	**13**	6	2	1	4
Ectopic pregnancy	**1**	0	0	0	1
Stillbirth	**0**	0	0	0	0
Unknown	**11**	6	3	1	1

- Data do not indicate potential risk for mother or fetus

Pooled Safety Data Set

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Data as of March 15, 2022

Post-Authorization Studies

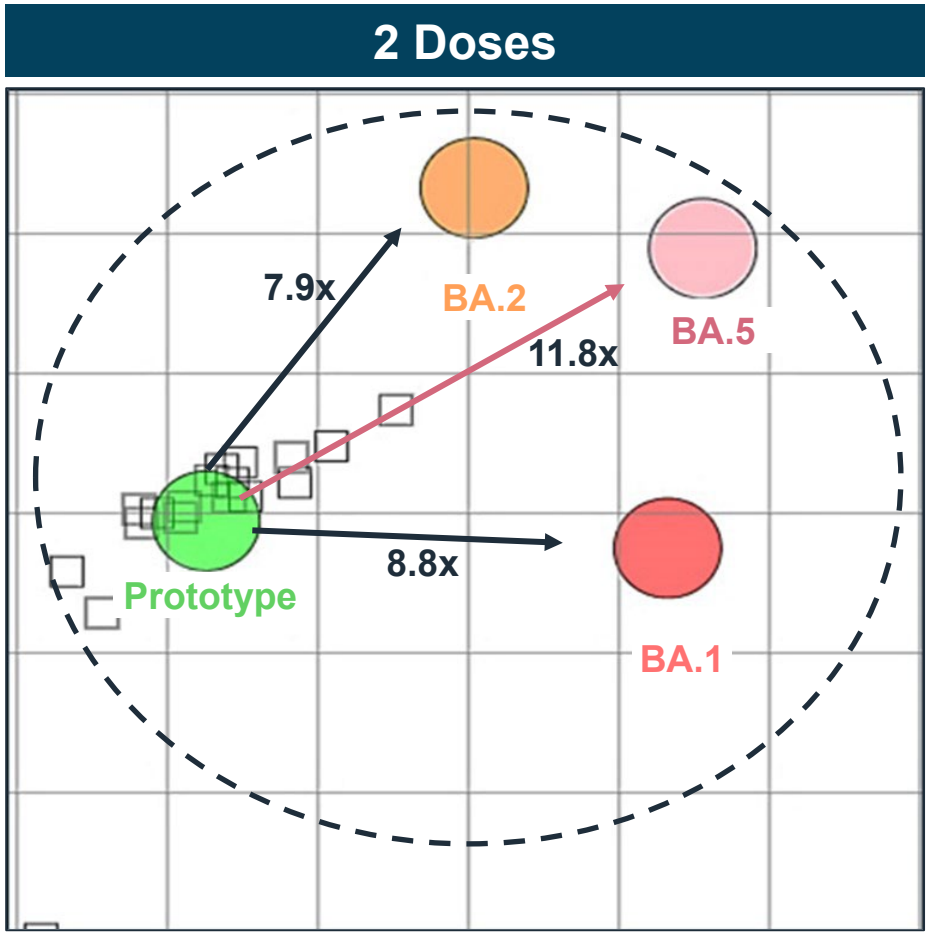
Plans and strategies to collect additional safety and effectiveness data

Planned Post-Authorization Studies

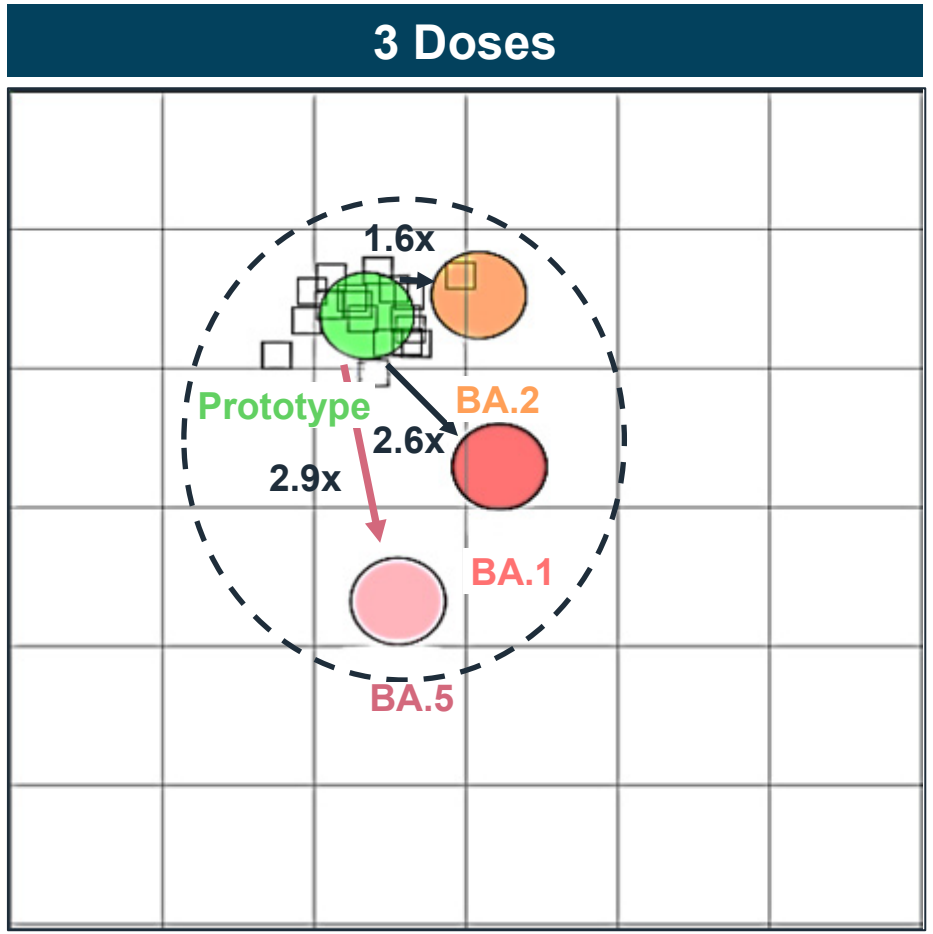
Study 401	Study 402	Study 403	Study 404	Study 405
Effectiveness	Safety	Effectiveness	Safety	Pregnancy
Against severe COVID-19 in Europe using COVIDRIVE	Using UK Clinical Practice Research Database	Using US Claims and/or Electronic Health Database	Using US Claims and/or Electronic Health Database	COVID-19 Vaccines International Pregnancy Exposure Registry

Next Steps and Conclusion

Study 301: Boosting Reduces Antigenic Distance, Provides Broader Recognition of New Variants



Antibody fold-difference
Prototype to BA.5 = 11.8



Antibody fold-difference
Prototype to BA.5 = 2.9

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Next Steps: Study Evaluating Prototype, Omicron Monovalent, and Bivalent Boosting

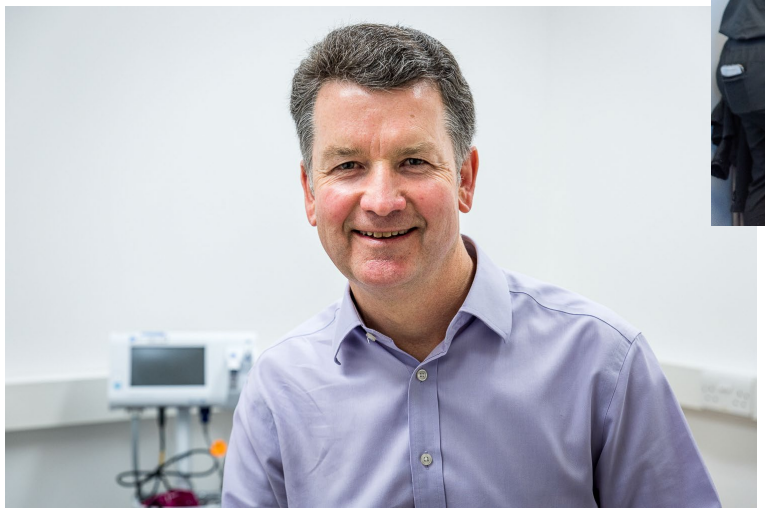
- Adults 18 to 64 years previously vaccinated with mRNA
- Five arms:
  - NVX-CoV2373
  - Monovalent Omicron BA.1
  - Bivalent prototype + Omicron BA.1
  - Monovalent Omicron BA.5
  - Bivalent prototype + Omicron BA.5
- Comparison of antibody responses between study arms
- Study started May 2022

Benefits of Novavax COVID-19 Vaccine

- ✓ High-levels of vaccine efficacy in two Phase 3 Studies, including against Variants of Interest and Variants of Concern[1]
- ✓ Differentiated and well-understood recombinant protein vaccine platform supports vaccine choice
- ✓ Matrix-M adjuvant induces robust and broad immune responses
- ✓ Favorable reactogenicity profile and safety data supporting a positive benefit-risk assessment
- ✓ Vaccine presentation and storage supports access and ease of use

1. Dunkle et al., NEJM, 2021; Heath et al., NEJM, 2021

Thank You!
Participants, Investigators and Study Personnel



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