

Corporate Presentation



February 27, 2023

VAXCYTE
protect humankind™

Forward-Looking Statements

This presentation contains forward-looking statements within the meaning of The Private Securities Litigation Reform Act of 1995. These statements include, but are not limited to, statements related to the potential benefits of Vaxcyte's vaccine candidates, including breadth of coverage and the ability to deliver a potentially best-in-class pneumococcal conjugate vaccine and the improvement upon the standard-of-care; demand for Vaxcyte's vaccine candidates; the timing of the initiation, progress and expected results of Vaxcyte's preclinical studies, clinical trials and research and development plans (including, but not limited to, the availability of data for the VAX-24 Phase 2 and Phase 3 studies and related regulatory interactions; the design of the VAX-24 Phase 2 clinical study in infants; the design of the VAX-24 Phase 2 clinical study in adults 65 years and older, including expected confidence intervals; the design of the VAX-31 (formerly called VAX-XP) clinical program, the submission of such IND and the availability of topline data; the announcement of guidance for VAX-A1; the use and availability of funds from CARB-X; the growth and expansion of the pneumococcal vaccine market, and the potential for Vaxcyte's PCV franchise to have sustained leadership within such market; the potential conversion by the pneumococcal vaccine market to a prime-boost schedule; the market opportunity for Vaxcyte's vaccines; Vaxcyte's expectations regarding the potential benefits, spectrum coverage, regulatory pathway, adoption speed and immunogenicity of its vaccine candidates; VAX-31's advancement as a follow-on candidate to VAX-24; the ability of Vaxcyte's strategic partnerships to deliver commercial, scalable manufacturing capabilities; and other statements that are not historical fact. The words "anticipate," "believe," "continue," "could," "designed," "estimate," "expect," "intend," "may," "plan," "potential," "predict," "project," "should," "target," "will," "would" and similar expressions are intended to identify forward-looking statements, although not all forward-looking statements contain these identifying words.

These forward-looking statements are based on Vaxcyte's current expectations and actual results and timing of events could differ materially from those anticipated in such forward-looking statements as a result of risks and uncertainties, including, without limitation, risks related to Vaxcyte's product development programs, including development timelines, success and timing of chemistry, manufacturing and controls and related manufacturing activities; potential delays or inability to obtain and maintain required regulatory approvals for its vaccine candidates; the risks and uncertainties inherent with preclinical and clinical development processes; the success, cost and timing of all development activities and clinical trials; sufficiency of cash and other funding to support Vaxcyte's development programs and other operating expenses; and impacts from the COVID-19 pandemic, which could materially and adversely affect Vaxcyte's business and operations. These and other risks are described more fully in Vaxcyte's filings with the Securities and Exchange Commission (SEC), including its Annual Report on Form 10-K filed with the SEC on February 27, 2023 or in other documents Vaxcyte subsequently files with or furnishes to the SEC. Vaxcyte undertakes no duty or obligation to update any forward-looking statements contained in this release as a result of new information, future events or changes in its expectations.

The background of the slide is a green-tinted microscopic image showing several large, spherical cells with textured, wrinkled surfaces. Some cells have darker, more complex internal structures. The cells are scattered across the frame, with some appearing larger and more prominent than others.

VAXCYTE MISSION STATEMENT

We are on a global mission to engineer high-fidelity vaccines that protect humankind from the consequences of bacterial diseases.

Key Corporate Highlights

Clinical-Stage Vaccine Innovation Company – Led by Pneumococcal Conjugate Vaccine (PCV) Franchise



POTENTIAL BEST-IN-CLASS PCV FRANCHISE: VAX-24 & VAX-31

- **Scalable platform** enabling broader-spectrum carrier-sparing PCVs
- **Lead candidate: VAX-24**
 - Potential best-in-class 24-valent PCV designed to replace SOC in adults and children
 - Reported positive topline Phase 1/2 data results in adults
 - Breakthrough Therapy and Fast Track designations in adults
 - FDA cleared infant IND application
- **Follow-on candidate: VAX-31**
 - Designed to provide ~95% coverage of IPD circulating in U.S. adults
 - Adult IND filing anticipated 2H:23¹



CELL-FREE PROTEIN SYNTHESIS PLATFORM

- Leverages **site-specific** conjugation to expose on-target T- and B-cell antigens
- Enables **carrier-sparing** conjugates
- Permits production of **“tough-to-make”** antigens



HIGHLY ATTRACTIVE PCV MARKET

- **Well-defined >\$7B** market segment **poised for substantial growth**
- Honors **well-understood PCV MOA**
- Leverages established **surrogate immune endpoints** and clinical pathways
- **Spectrum of coverage is primary adoption driver**



ROBUST DEVELOPMENT PIPELINE

- Platform unlocks large market opportunities:
 - **VAX-A1**: Novel Group A Strep conjugate vaccine
 - **VAX-PG**: Novel periodontitis therapeutic vaccine
 - **VAX-GI**: Novel Shigella vaccine



ALIGNED CRITICAL RESOURCES

- **Strategic alignment** with Lonza (manufacturing)
- **Seasoned management team**, directors and advisors
- **\$957.9 million in cash, cash equivalents and investments** as of 12/31/22

(1) Guidance provided as of February 27, 2023.
SOC = Standard-of-Care.
IPD = Invasive Pneumococcal Disease.

Experienced Team with Track Record in Vaccines and Biopharma

Management Team

Grant Pickering, MBA
CEO & Co-founder



Andrew Guggenhime, MBA
President & CFO



Jim Wassil, MS, MBA
EVP & COO



Mark Wiggins, MBA
CBO



Jakub Simon, MD, MS
CMO



Jeff Fairman, PhD
VP Research & Co-founder



Paul Sauer, MBA
SVP PD & Manufacturing

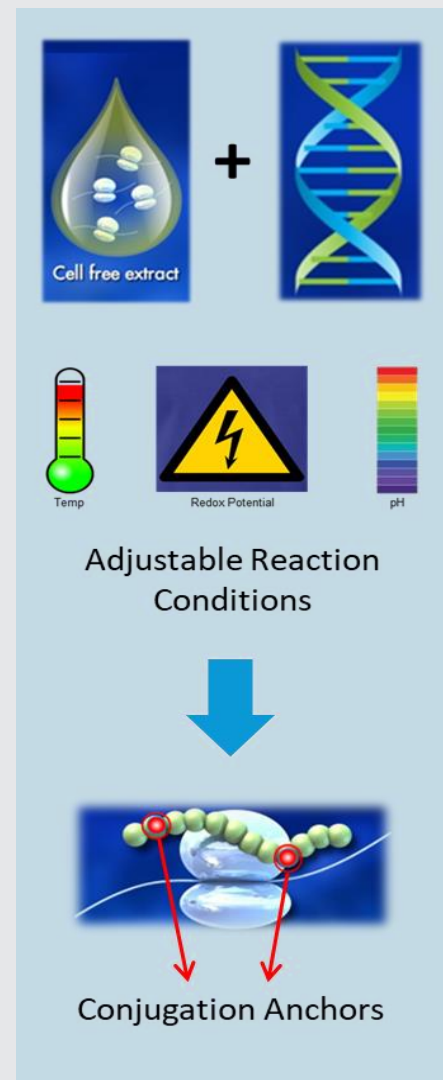


Harp Dhaliwal, MBA
SVP Commercial Mfg & Supply Chain



Cell-Free Protein Synthesis Platform Unlocks Multiple Vaccine Applications

Design and Produce Proteins Beyond Reach of Conventional Methods



CELL-FREE PROTEIN SYNTHESIS

- Transcriptional & translational (ribosomal) machinery from *E coli* stored as a frozen “extract”
- Produces singular protein of interest at high yields
- Enables site-specific conjugation via insertion of multiple nnAA conjugation anchors
- Permits protein production in non-physiological conditions

SPEED, FLEXIBILITY, SCALABILITY

- Rapidly screen vaccine candidates
- Flexible reaction conditions
- Scaled to 1000L using standard equipment

SUPERIOR CONJUGATE VACCINES

- Site-specifically attach antigens onto protein carriers designed to:
 - Enable consistent exposure of T-cell epitopes and/or B-cell epitopes on protein carrier
 - Avoid off-target effects
 - Enable use of less protein carrier without sacrificing immunogenicity
 - Enable broader-spectrum vaccines

NOVEL PROTEIN VACCINES

- Able to produce “tough-to-make” protein antigens that conform to target pathogens
- Increased likelihood of protective immune response

Pipeline of High-Fidelity Vaccines

Broad-Spectrum Conjugate and Novel Protein Vaccines to Prevent or Treat Bacterial Infectious Diseases



Anticipated PCV Franchise Milestones for 2023-2025¹

Vaxcyte is Advancing Clinical Development of VAX-24 and VAX-31 with Several Key Upcoming Milestones

VAX-24 Adult

- Topline safety, tolerability and immunogenicity data from Phase 2 study in adults 65 and older in **Q2:23**
- Final results with six-month safety data for both Phase 2 adult studies in **1H:23**
- Following receipt of final safety reports, regulatory interactions to inform adult Phase 3 program in **2H:23**
- Topline safety, tolerability and immunogenicity data from the Phase 3 pivotal non-inferiority study in adults in **2025**

VAX-24 Infant

- Infant Phase 2 study initiation in **Q2:23**
- Topline safety, tolerability and immunogenicity data from Phase 2 study in infants following the primary 3-dose immunization series by **2025**

VAX-31 Adult

- Adult IND application submission to FDA in **2H:23**
- Topline safety, tolerability and immunogenicity data from Phase 1/2 study in adults in **2024**

(1) Guidance provided as of February 27, 2023.

Critical Manufacturing Foundation Established for PCV Franchise

Long-term Investment and Strategic Partnerships to Deliver Commercial, Scalable Manufacturing Capabilities



STRATEGIC ALIGNMENT WITH WORLD-CLASS CDMO

- End-to-end “turn-key” GMP supply established at marquee Swiss facility
- Existing infrastructure is well-positioned to support U.S. adult launch for VAX-24
- Plans to ensure expanded commercial manufacturing footprint to support infant indication and ex-U.S. demand are underway



LONGSTANDING RELATIONSHIP WITH SUPPLIER OF KEY VACCINE COMPONENT

- December 2022 agreement provides expanded rights related to the supply of cell-free extract and an option to acquire additional rights to develop and manufacture cell-free extract
- Enables direct oversight and control of cell-free extract manufacturing for our products and provides additional flexibility going forward

PCV Opportunity

Global Impact of Pneumococcal Disease Remains Significant



ABOUT STREPTOCOCCUS PNEUMONIAE

Streptococcus pneumoniae is the most common pathogen causing pneumococcal disease (PD).

- Non-invasive PD includes otitis media, sinusitis, pneumonia
- Invasive PD (IPD) includes bacteremia, meningitis
- Pneumococci cause over 50% of bacterial meningitis cases in the U.S.



CURRENT \$7 BILLION GLOBAL VACCINE CATEGORY

Vaccinations are recommended globally for infants and adults to prevent PD.

Standard of Care schedule in the U.S.:

- Infants: Prevnar 13® (PCV13) or Vaxneuvance™ (PCV15) x 4 doses/each
- Adults: Prevnar 20™ (PCV20) or PCV15 x 1 dose followed by Pneumovax® 23 (PPV23) x 1 dose, if PCV15



GLOBAL INCIDENCE & IMPACT OF PD STILL SUBSTANTIAL

Global incidence driven by emerging serotypes not covered by currently available vaccines.

- In the U.S. alone, there are ~320K pneumococcal pneumonia cases per year resulting in ~150K hospitalizations
- IPD is a leading cause of invasive disease in children two years of age and under

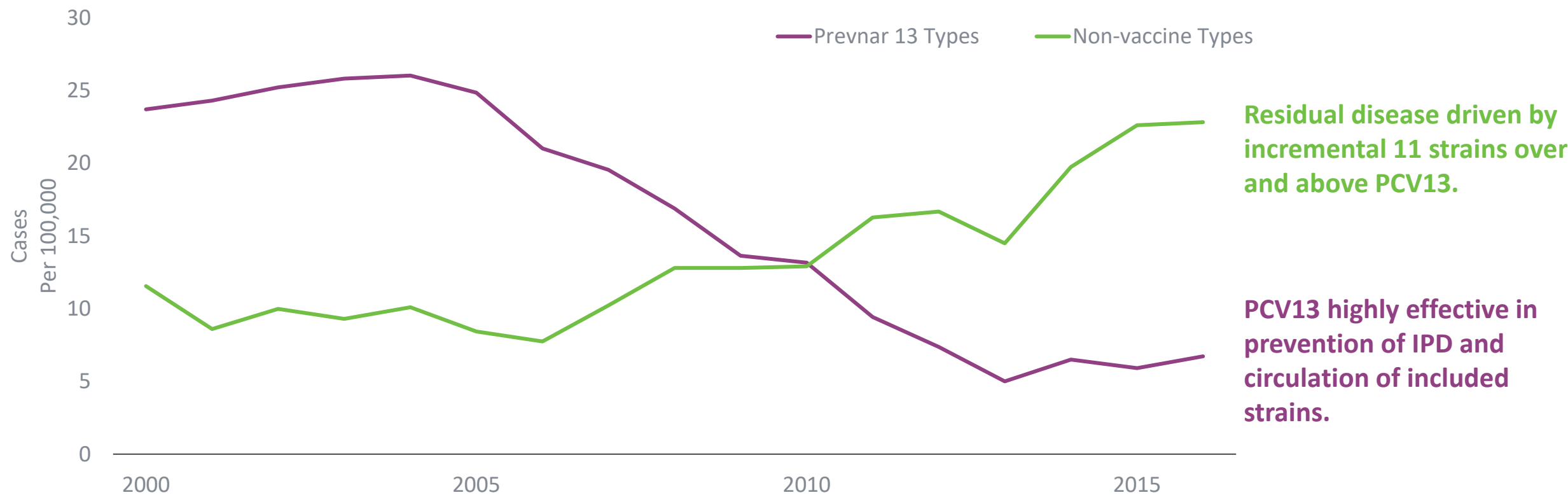
(1) <https://www.cdc.gov/pneumococcal/clinicians/clinical-features.html>.

(2) <https://www.cdc.gov/vaccines/pubs/pinkbook/pneumo.html>.

Serotype Replacement Drives Need for Broader-Spectrum Vaccines

Non-Vaccine Serotypes Increase in Prevalence, as Circulation of Vaccine Serotypes is Eliminated, Resulting in the Need for Broader-Spectrum Vaccines

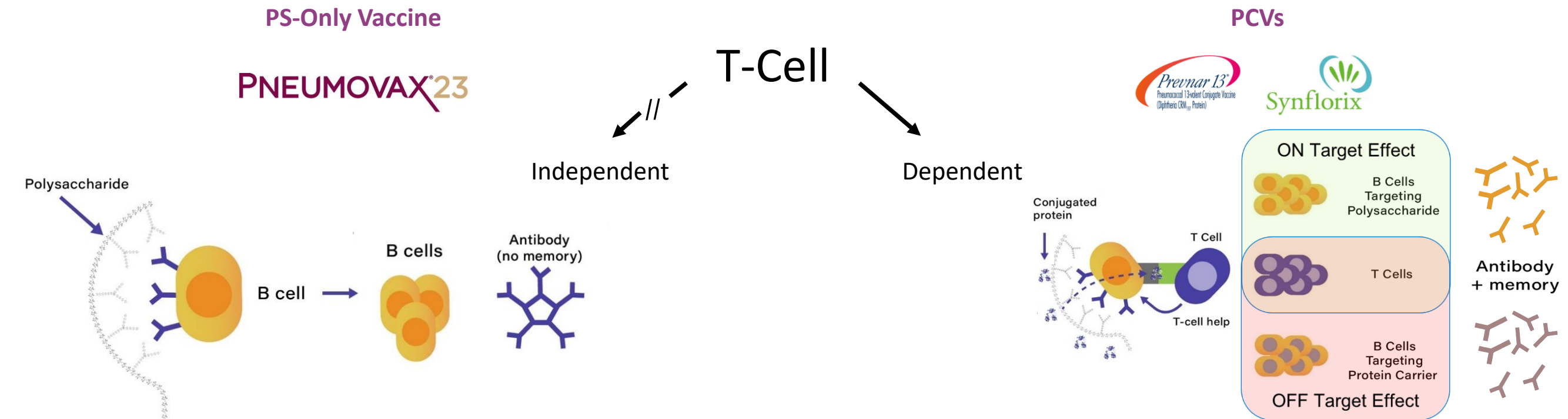
UK IPD CASES IN ADULTS ≥ 65 ¹



(1) Ladhani et al, Lancet Infect Dis 2018 Apr;18(4):441-45 inclusive of unpublished raw data.

PCVs Designed to Overcome the Limitations of Polysaccharide-Only Vaccines

PCV Efficacy Driven by T-Cell Epitopes on Diphtheria Toxin Protein Carrier – CRM₁₉₇¹



Broad Coverage But Limited Protection in Adults - Not Boostable

Pneumococcal capsular polysaccharides (PS) antigens lead to:

- Transient Ab responses (IgM) protect against sepsis, but not pneumonia
- No T-cell mediated memory responses, thus no boost
- Hyporesponsive effect inhibits ability to boost PCVs post-prime

Narrow Coverage But Highly Effective in Adults & Infants - Boostable

Conjugation of PS to protein carrier leads to:

- Enhanced Ab responses (IgG) that protect against pneumonia
- T cell-mediated memory to provide boostable, durable protection
- Characteristic interstrand crosslinked matrix-like structures

Note: Graphics adapted from Strugnelli et al, Understanding Modern Vaccines, Vol 1, Issue 1, 61-88.

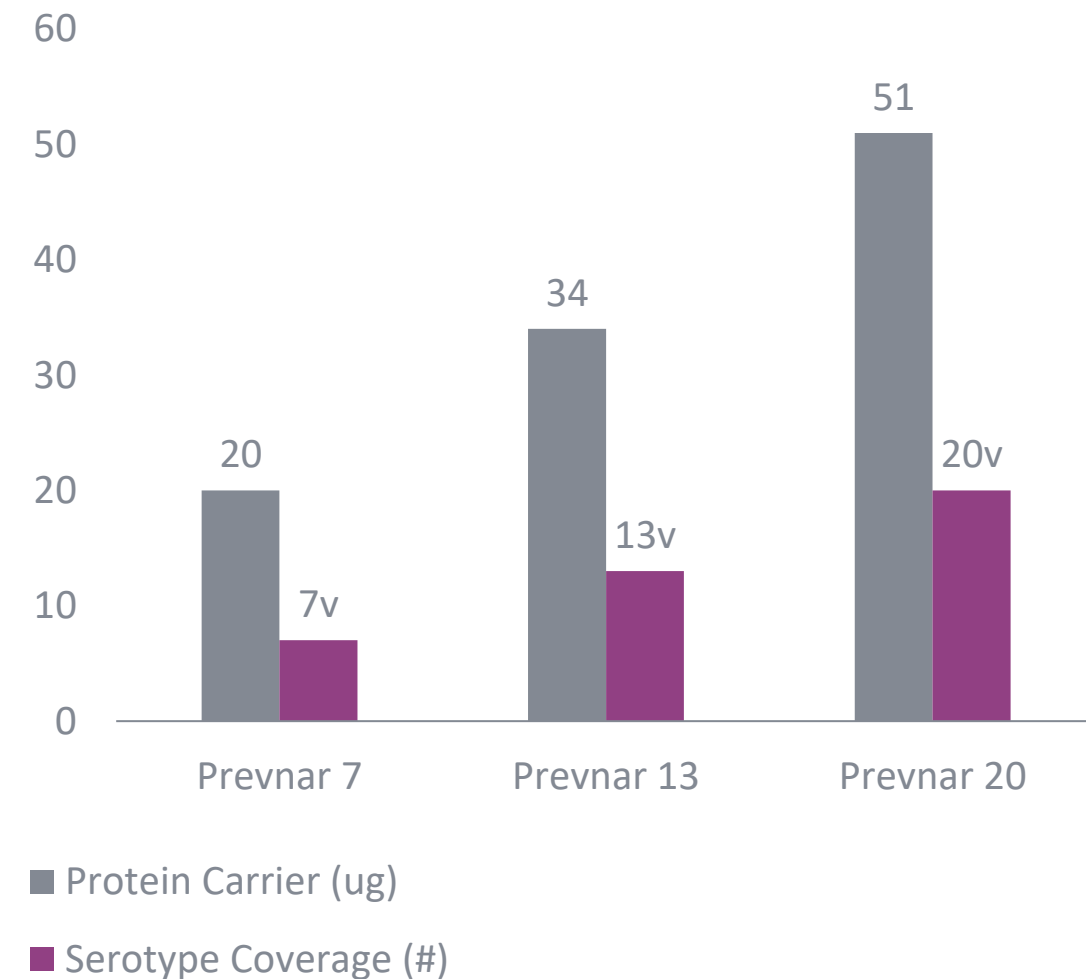
(1) Protein carrier in Pevnar 13 is a modified form of diphtheria toxin (CRM₁₉₇).

Limitations of Current PCVs

Coverage Expansion Needed to Address Circulating Disease, but Protein Carrier Backbone Problematic

LIMITATIONS OF CONVENTIONAL CHEMISTRY

- Random conjugation
- Higher ratio of protein carrier to polysaccharide, due to reaction conditions required for conjugation
- Further exacerbates carrier suppression, due to competition for CD4+ help between disease-specific polysaccharides and non-disease specific protein carrier



(1) Prevnar 20 BLA Clinical Review Memorandum. STN: 125731/0 June 8, 2021.

Limitations of Current PCVs: Adding Conjugates Results in Lower Ab Titers

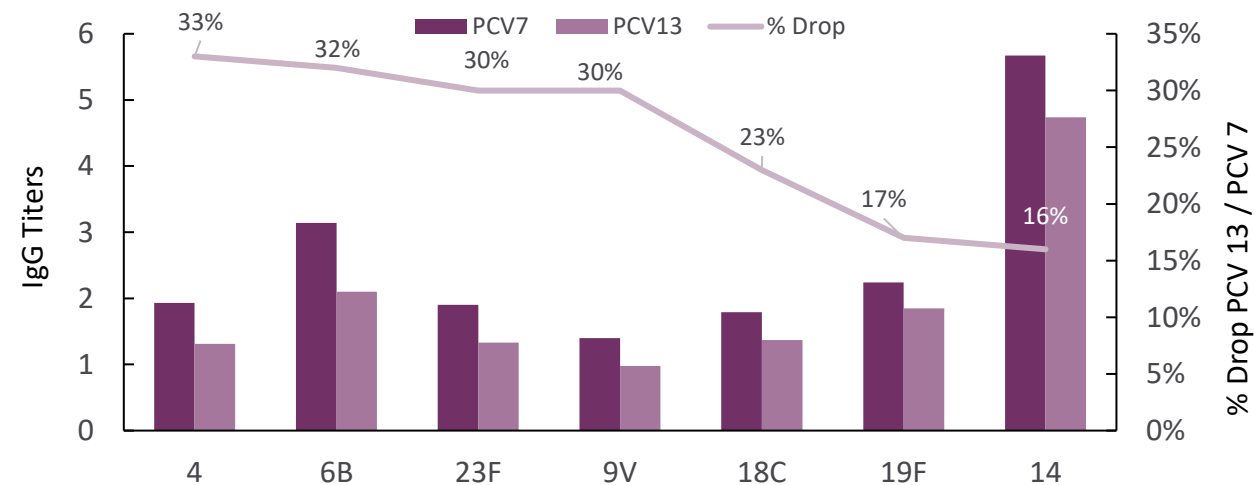
Coverage Expansion Using Conventional Chemistry Has Led to Carrier-Induced Immune Suppression

CARRIER SUPPRESSION

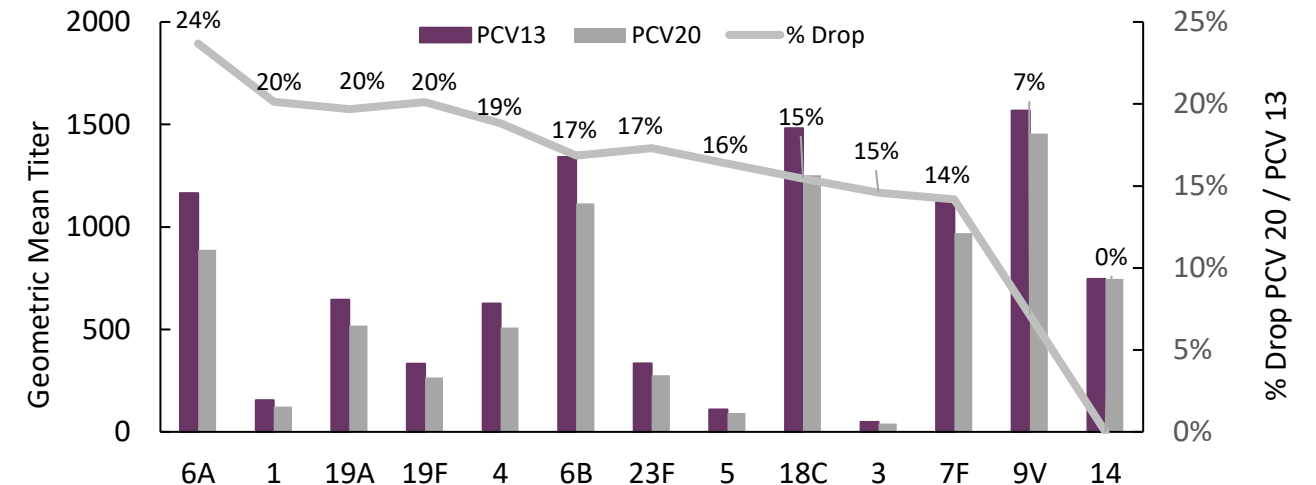
Diminished immune response to target polysaccharides due to cumulative amount of protein carrier

- Expanded spectrum of coverage requires increasing protein carrier burden
- Reduced immune responses consistently demonstrated with > spectrum PCVs in both infants and adults

INFANT IMMUNE RESPONSES (IgG):
PREVNAR 7 VS PREVNAR 13¹



ADULT IMMUNE RESPONSES (OPA):
PREVNAR 13 VS PREVNAR 20²



(1) Yeh et al, Pediatrics. 126: e493 (2010).

(2) Prevnar 20 BLA Clinical Review Memorandum. STN: 125731/0 June 8, 2021

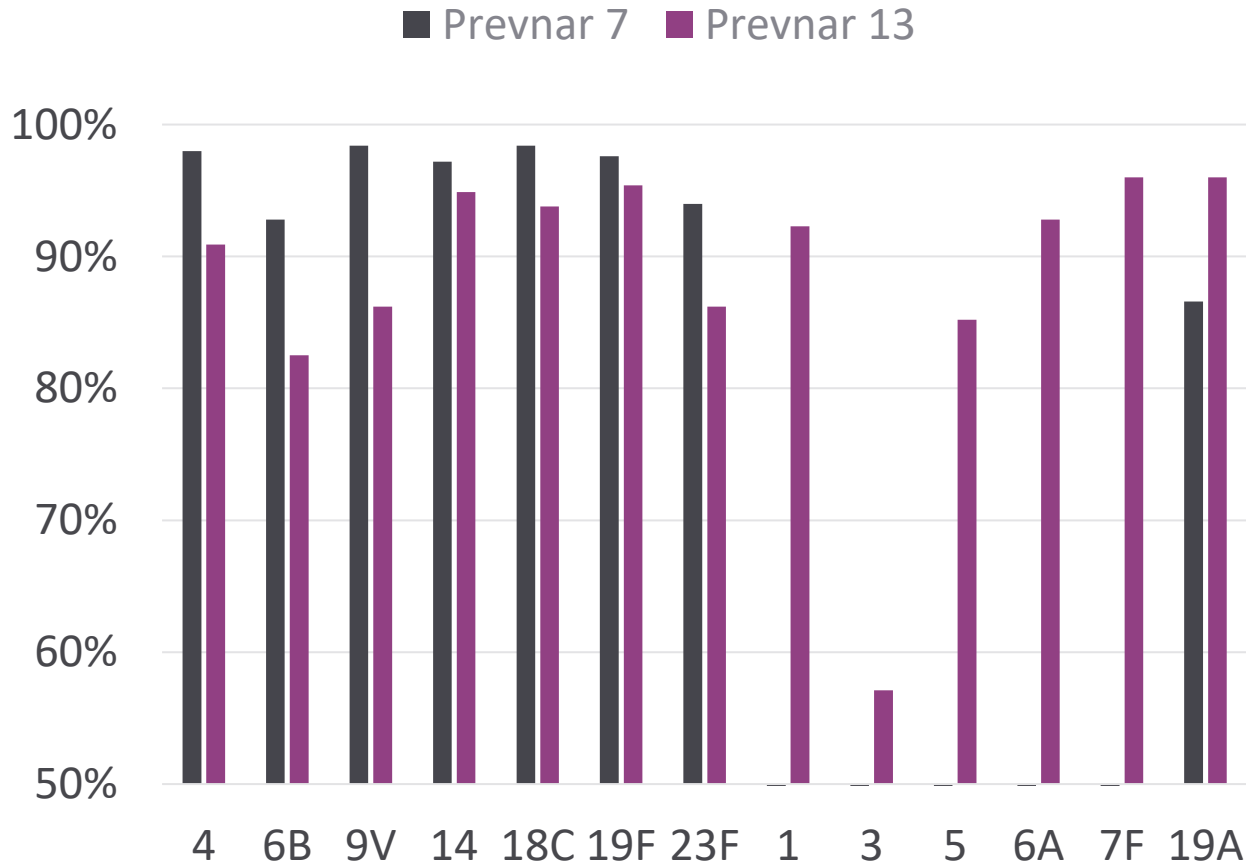
OPA = Opsonophagocytic assay.

IgG - Immunoglobulin G.

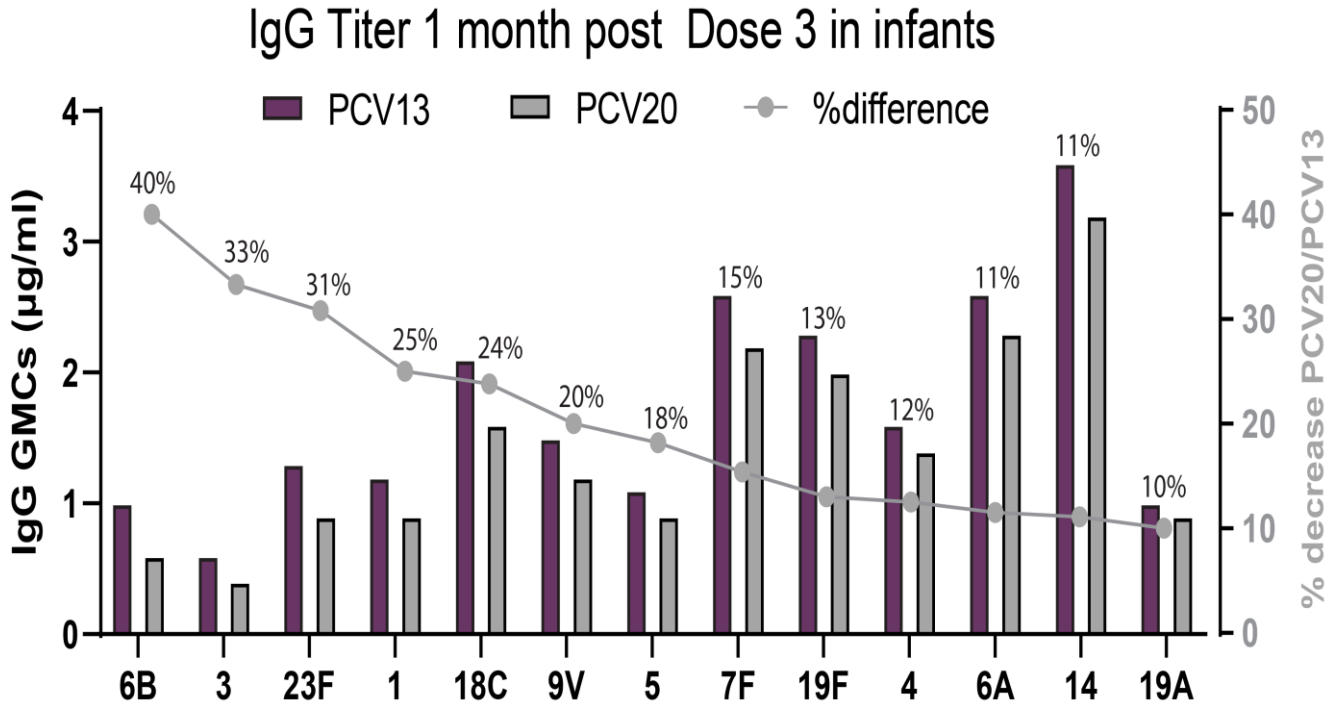
Limitations of Current PCVs: Adding Conjugates Results in Lower Seroprotective Levels^{1,2}

CURRENT REGULATORY GUIDANCE: MUST BE WITHIN 10%³ TO BE NON-INFERIOR POST-DOSE 3

PH 3 INFANT DATA % SEROPROTECTED
PREVNAR 7 VS PREVNAR 13^{1,2}



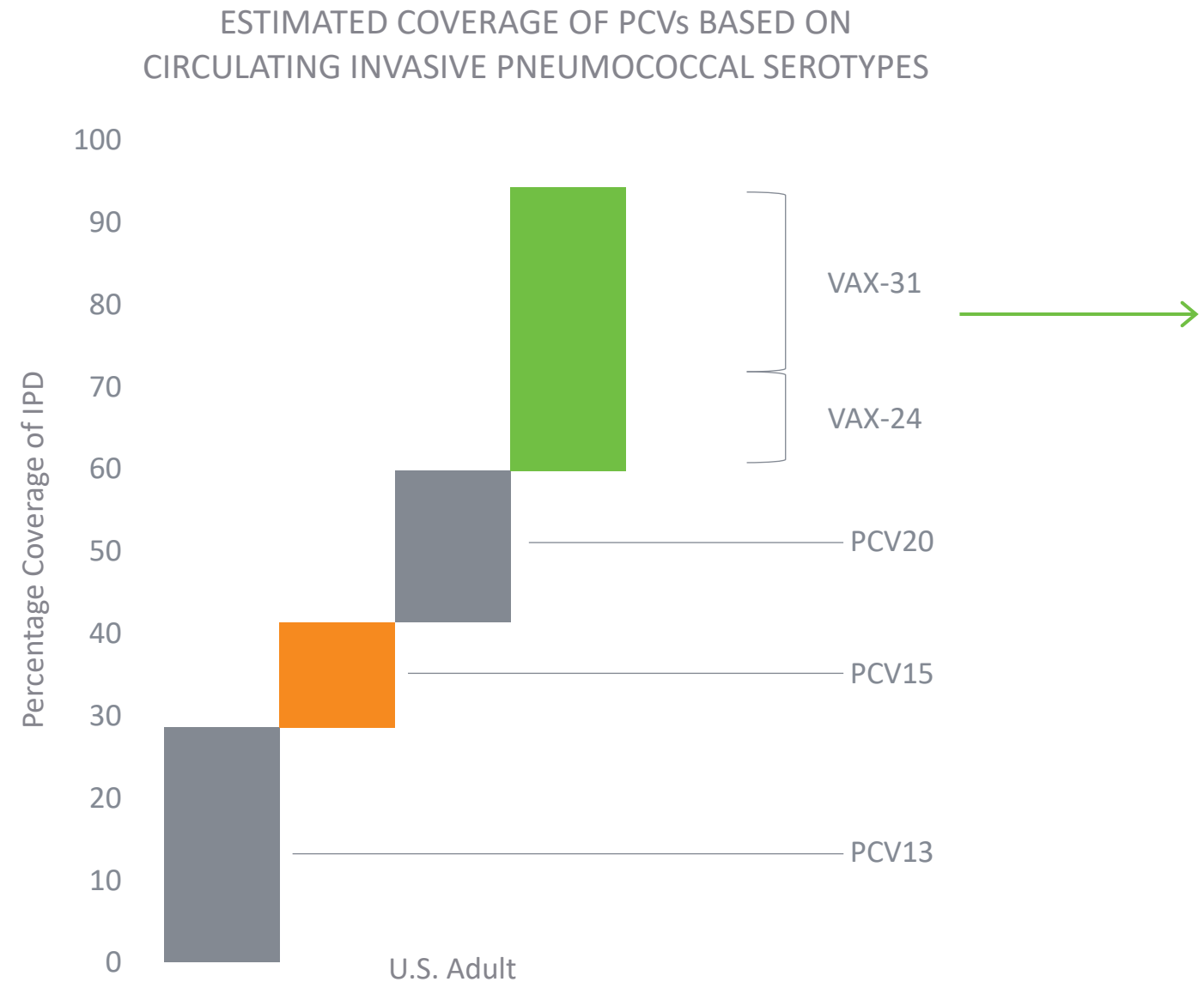
PH 2 INFANT DATA IMMUNE TITERS
PREVNAR 13 VS PREVNAR 20⁴



(1) Prevnar 13 BLA Clinical Review Memorandum by FDA. February 17, 2010.
(2) Seroprotection is defined as a serotype-specific IgG antibody level of $\geq 0.35\text{mcg/mL}$.
(3) Non-inferiority comparison is LL of 95% CI of the comparator to the mean % responders of the SoC.
(4) Clintrials.gov NCT03512288 Phase 2 study (N=460).

Spectrum of Coverage Drives Adoption in PCV Segment

Significant Unmet Needs Remain Despite Available Vaccines



VAX-24 & VAX-31 PROFILE

Vaxcyte’s carrier-sparing PCV franchise designed to provide broadest coverage of any PCVs:

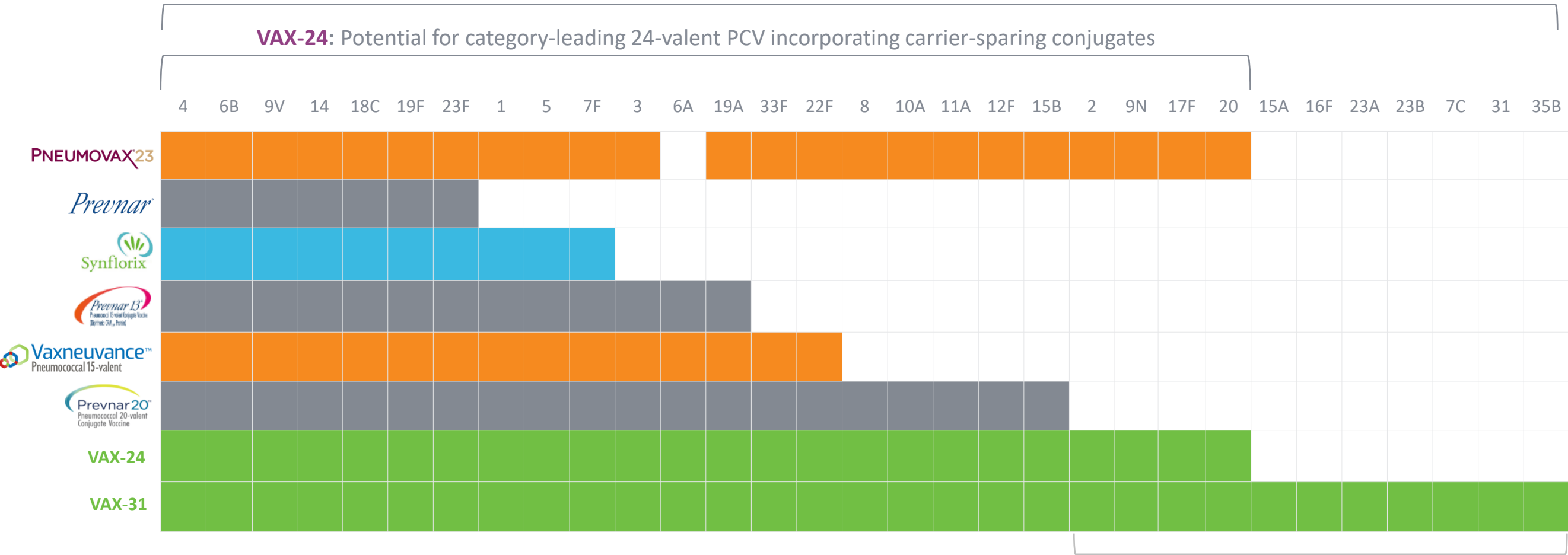
- VAX-24 has the potential to provide an incremental 10-28% coverage of IPD in U.S. adults vs. the SOC PCVs today, which would eclipse the coverage of Pneumovax 23
- VAX-31 is designed to provide coverage for ~95% of the IPD currently circulating in the U.S. adult population

(1) Data in the US is for 2017, inclusive of those > 5 yrs of age.
(2) Varghese et al. Clin Micro and Infect (2020) 26(4): 512.e1-512.e10.
SOC = standard of care.

Vaxcyte Carrier-Sparing PCV Franchise has Potential for Sustained Leadership in Growing >\$7B Pneumococcal Vaccine Market

VAX-31: Next-generation 31-valent PCV showcases franchise approach and scalability of carrier-sparing conjugates

VAX-24: Potential for category-leading 24-valent PCV incorporating carrier-sparing conjugates



Spectrum of Coverage Drives Adoption

Source: Prescribing information for Prevnar, Prevnar 13, Prevnar20, Synflorix, Vaxneuvance, and Prevnar 20. Company filings for Vaxcyte.

Pneumococcal Vaccine Market is Highly Attractive

VAX-24 has the Potential to Become the Most Broad-Spectrum PCV

PNEUMOCOCCAL VACCINE MARKET DYNAMICS

SPECTRUM OF COVERAGE DRIVES ADOPTION

- Potential for rapid adoption, with ACIP recommendation driving uptake
- Examples: PCV13 vs Prevnar 7 (PCV7) and Shingrix® vs Zostavax®

ATTRACTIVE MARGINS

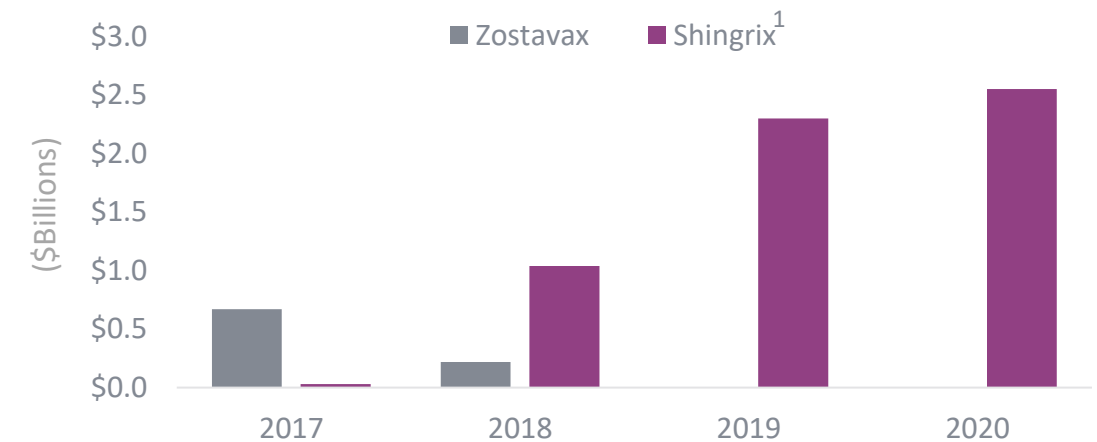
- Pneumococcal vaccines are premium priced in the U.S., delivering highly attractive margins
- Broader-spectrum PCVs maintain premium price

PCVs ARE BEST-IN-CLASS

- Well-understood T-cell dependent MOA tied to co-presentation of disease-specific polysaccharide antigens with mapped T-cell epitopes on protein carrier
- Well-defined clinical development path: Non-inferiority to SOC using validated surrogate immune endpoints adequate for full approval for follow-on PCVs

DURABLE REVENUE STREAM

- Prevnar Family (PCV7/PCV13/PCV20) & PPV23 have generated >\$100B in revenues; PCV13 and PCV20 had combined annual sales of ~\$6B in 2022



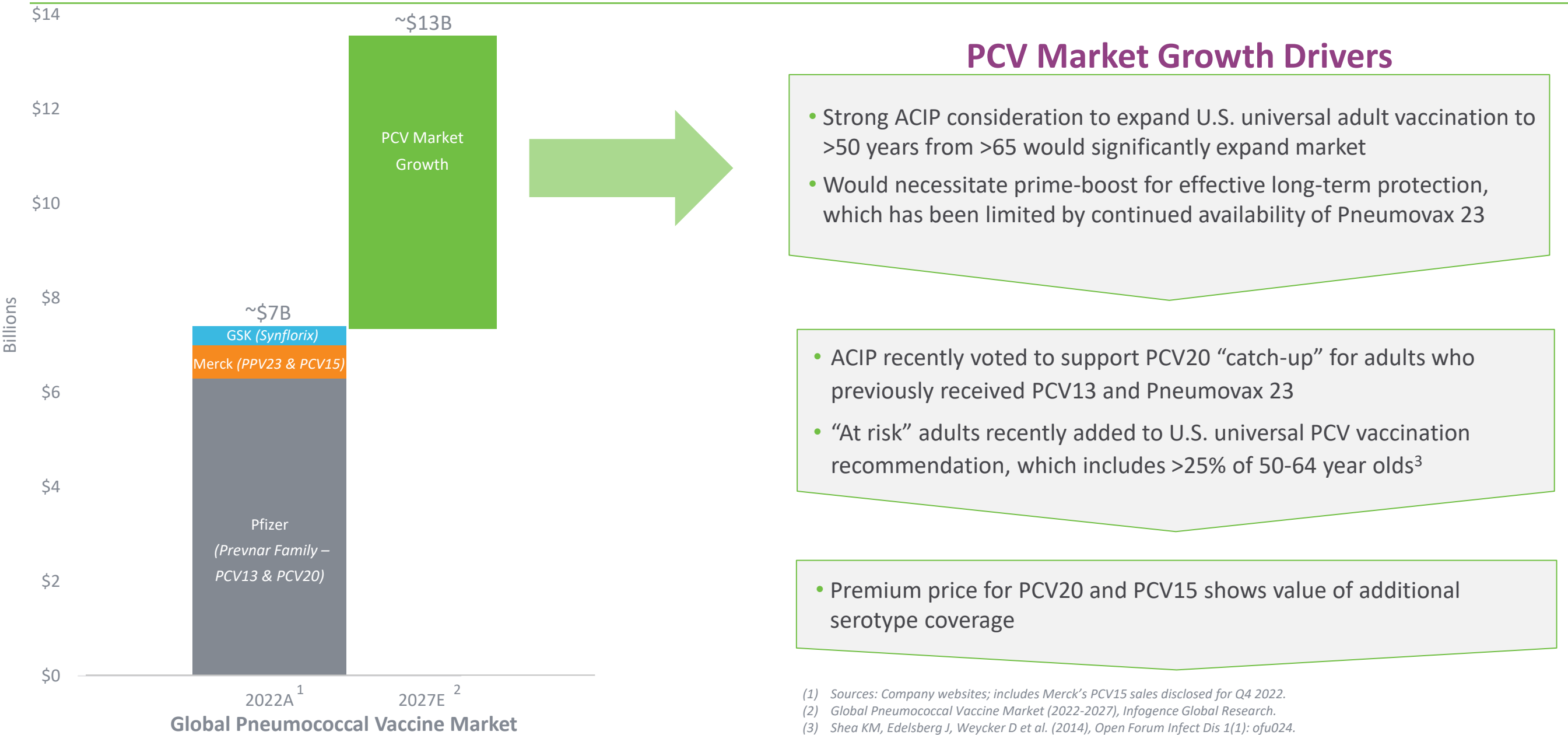
- FDA approved in 4Q:2017 to prevent shingles in adults
- ACIP granted “preferred recommendation”
- Replaced the incumbent (Zostavax from Merck)

MOA = mechanism of action; SOC = standard of care; ACIP = US CDC Advisory Committee on Immunization Practices.

(1) Revenues reported in GSK (Shingrix) and Merck (Zostavax) financial filings.

Pneumococcal Vaccine Market Poised for Significant Growth

Expected to Reach ~\$13B by 2027 Driven Primarily by Growth in Adult Market

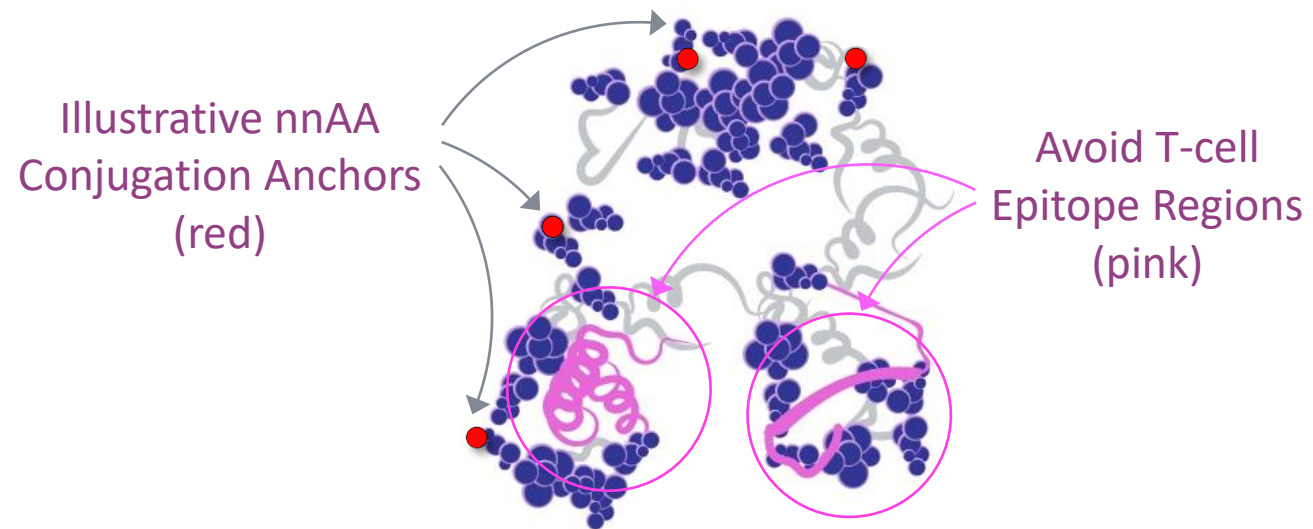


Differentiated PCV Franchise Led by VAX-24

Vaxcyte's PCV Franchise Employs Carrier-Sparing Conjugates

Cell-Free Platform Enables Precise Conjugation to Enhance Potency of Standard Protein Carrier

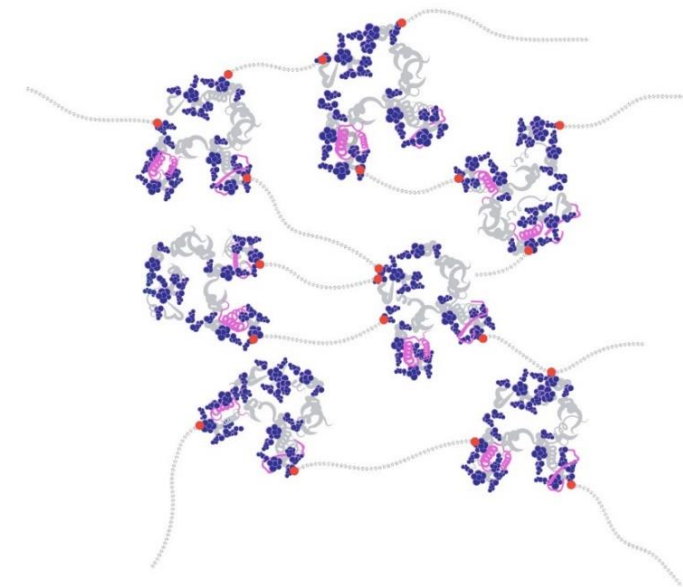
PRECISE, SITE-SPECIFIC CONJUGATION SITES ON PROPRIETARY
eCRM[®] PROTEIN CARRIER



eCRM: Enhanced Potency Potential

- Avoids masking sites on CRM₁₉₇ carrier responsible for T-cell help
- Optimized sites for conjugation using copper-free click chemistry
- More consistent antigenic presentation

FINAL VAX-24 CONJUGATES IN CUSTOMARY MATRIX FORM



Carrier-Sparing Conjugates

- Less protein carrier / conjugate may allow addition of more serotypes while minimizing carrier suppression and maintaining immunogenicity
- VAX-24 and VAX-31 conjugates form standard PCV interstrand crosslinked matrices
 - Perceived as foreign by the host
 - Allows use of standard critical quality attributes and serological assays

Vaxcyte PCV Franchise Design Leverages Many Standard PCV Conventions

Utilizes Proven Components, Chemistries and Assays to Reduce Risk and Uncertainty

	Polysaccharide		Protein Carrier		Assays		
	CDAP / Periodate Activation	Amination for Labeling PS	Incorporation of Non-natural AAs	Random Lysine Conjugation	Site-Specific Click Chemistry Conjugation	CQA Release Assays (Mol Wt, Free PS)	Serological Assays (IgG & OPA)
Pfizer/MRK Methods	✓	✓		✓		✓	✓
Vaxcyte	✓	✓	Novel Enablement: Site-specific conjugation via incorporation of nnAA conjugation anchors		✓	✓	✓

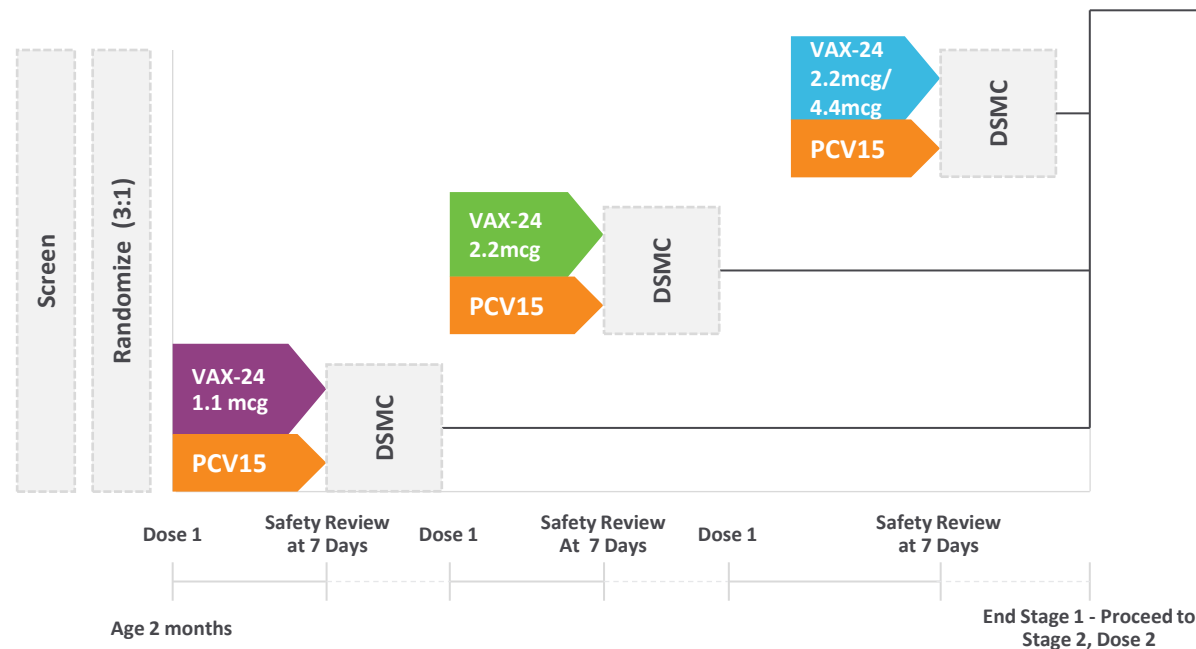
- Where appropriate, we expect to capitalize on the efficiencies of well-established clinical, manufacturing & regulatory precedents by leveraging conventional methods for the development of VAX-24 and VAX-31
- Vaxcyte has leveraged the same animal models utilized in the development of both approved PCVs (Prevnar and Synflorix)

VAX-24 Phase 2 Infant Study

Design of VAX-24 Phase 2 Clinical Study in Infants; Initiation Expected in Q2:23¹

Randomized, Observer-Blind, Active-Controlled, Dose-Finding, Clinical Study to Evaluate Safety, Tolerability & Immunogenicity of VAX-24 vs SOC in Healthy Infants

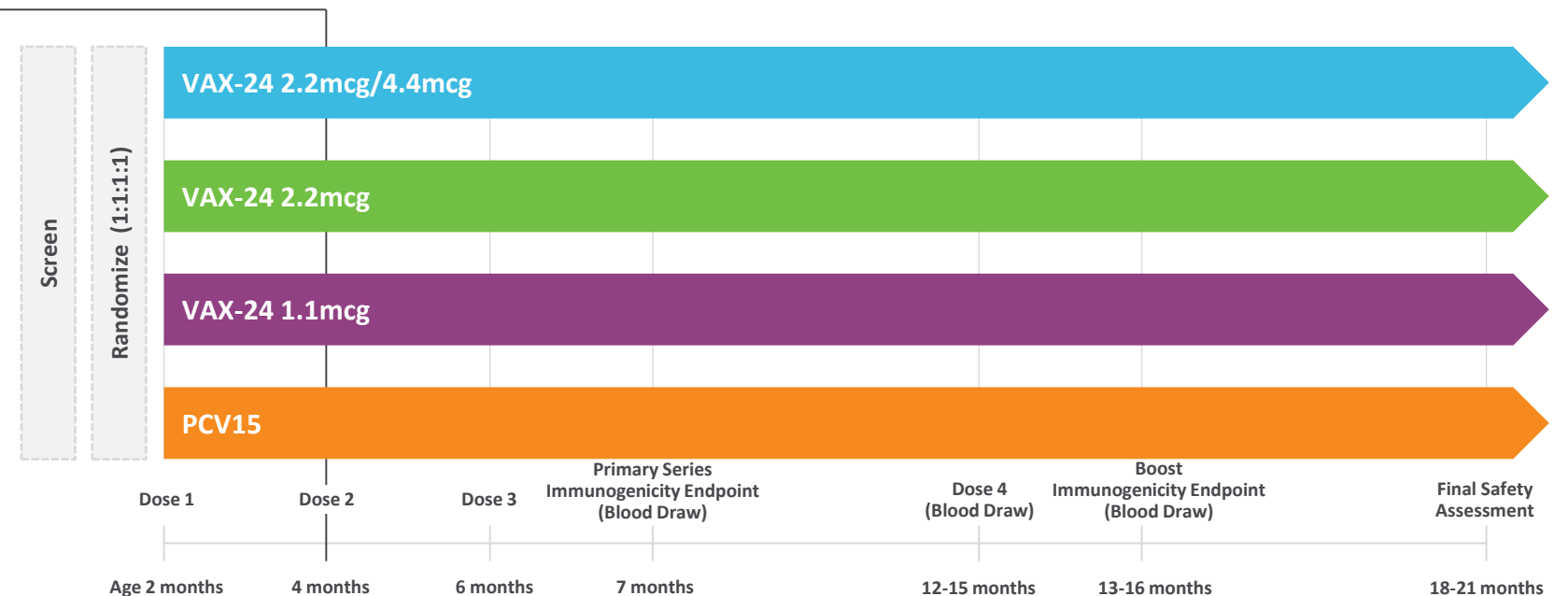
Stage 1: Dose Escalation (n~48)



STAGE 1 OVERVIEW

- Stage 1 will evaluate safety and tolerability of a single injection of VAX-24 at three dose-escalating levels compared to PCV15 in ~48 healthy infants.
- Infants will be enrolled and dosed at two months of age and evaluated seven days post-dose. Following satisfactory Data Safety Monitoring Committee (DSMC) review of safety data, the study will proceed to the next dose.
- If DSMC approves moving forward, all participants from Stage 1 will be part of the Stage 2 study starting at dose two (four months).

Stage 2: Main Study (n~750)



STAGE 2 OVERVIEW

- Stage 2 will evaluate safety, tolerability and immunogenicity of VAX-24 at three dose levels and compared to PCV15 in ~750 healthy infants. Per ACIP guideline, the primary immunization series includes three doses given at two months, four months and six months of age, followed by a booster dose at 12-15 months of age.
- The key prespecified immunogenicity study endpoints include an assessment of the induction of immunoglobulin G (IgG) antibody responses 30 days post-dose three (proportion of participants achieving accepted IgG threshold of $\geq 0.35\mu\text{g/ml}$) and IgG geometric mean titer ratios 30 days post-dose 4 on a serotype-by-serotype basis for all three VAX-24 dose levels and compared to PCV15.
- All participants will be evaluated for safety six months following the booster dose at 12-15 months of age.

SOC = standard-of-care

ACIP = Advisory Committee on Immunization Practices

(1) Guidance provided as of February 27, 2023

VAX-24 Adult Phase 1/2 Study Topline Results

VAX-24 Phase 1/2 Study Topline Data Key Take-Aways

Unprecedented Results Support Best-in-Class Potential for VAX-24 and Identify Optimal Dose for Advancement



SAFETY: VAX-24 demonstrated a safety and tolerability profile similar to Prevnar 20™ (PCV20) for all doses



IMMUNOGENICITY: Met or exceeded regulatory standard for all 24 serotypes (STs) for VAX-24 conventional 2.2mcg dose without the need to push dose higher

- Optimal 2.2mcg dose being advanced to Phase 3:
 - Met the standard OPA response non-inferiority criteria for all 20 STs common with PCV20, of which 16 achieved higher immune responses
 - Met the standard superiority criteria for all 4 additional STs unique to VAX-24
- All VAX-24 doses (1.1mcg, 2.2mcg, and 2.2mcg/4.4mcg) eligible to advance



PLATFORM: VAX-24 data validate Vaxcyte's carrier-sparing PCV franchise to increase spectrum of coverage AND maintain robust immune responses to serotypes in current standard-of-care PCVs

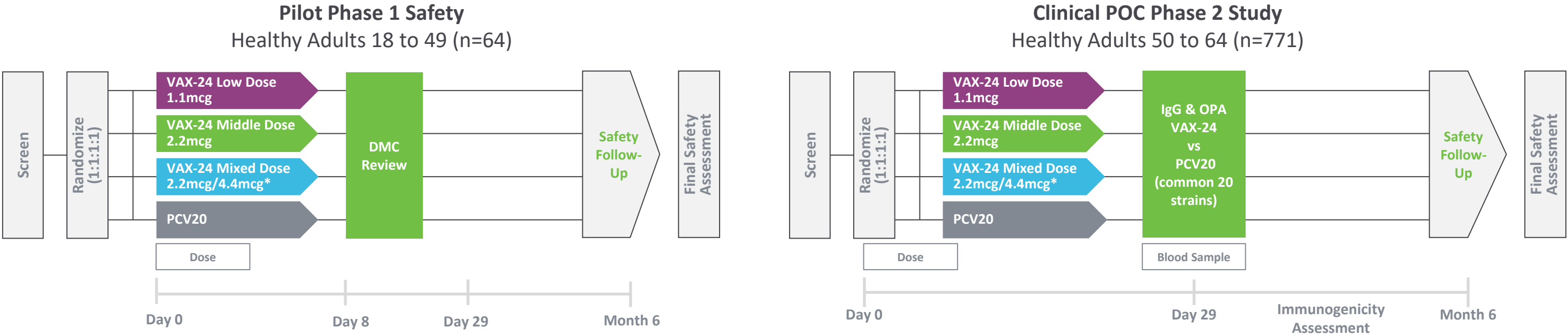


PCV FRANCHISE: VAX-31, a 31-valent PCV candidate, advancing as follow-on to VAX-24

- Learnings from Phase 1/2 study to inform optimal design for VAX-31 clinical program given ability to add STs without sacrificing overall immune responses

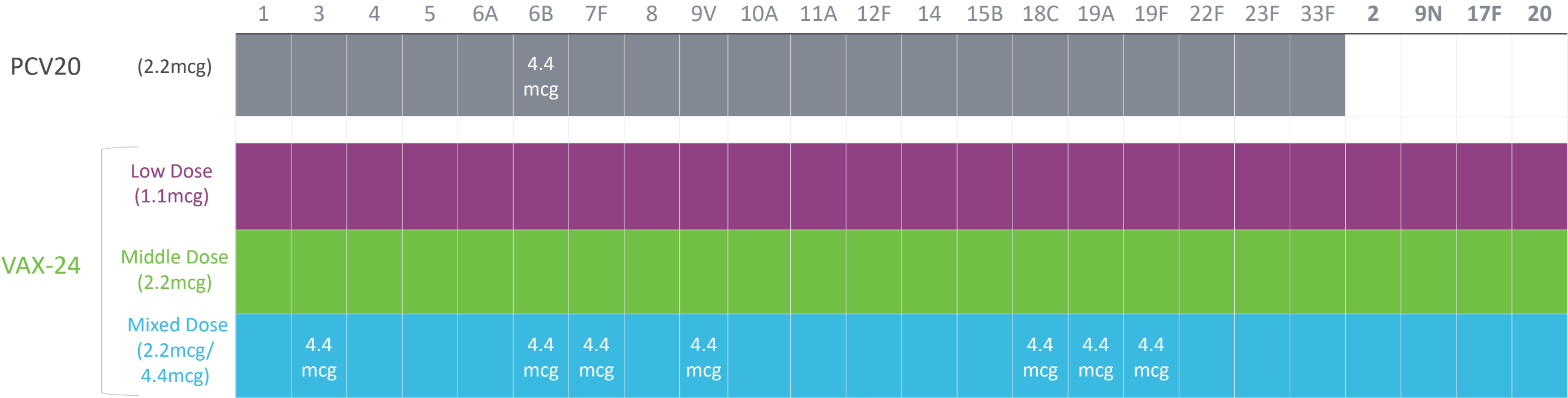
VAX-24 Phase 1/2 Clinical Proof-of-Concept Study Design

Design: Randomized, Observer-Blind, Dose-Finding, Controlled Study to Evaluate Safety, Tolerability & Immunogenicity of VAX-24 vs SOC in Adults Aged 18-64



* For the VAX-24 Mixed Dose, a 4.4mcg dose is used for serotypes 3, 6B, 7F, 9V, 18C, 19A and 19F; a 2.2 mcg dose is used for the remaining serotypes.

Study Evaluated Three VAX-24 Doses



- Mixed Dose includes seven serotypes at 4.4mcg strategically chosen based on epidemiological relevance or prior evidence of dose-dependent immune responses to increase the probability of generating non-inferior immune responses for those serotypes.

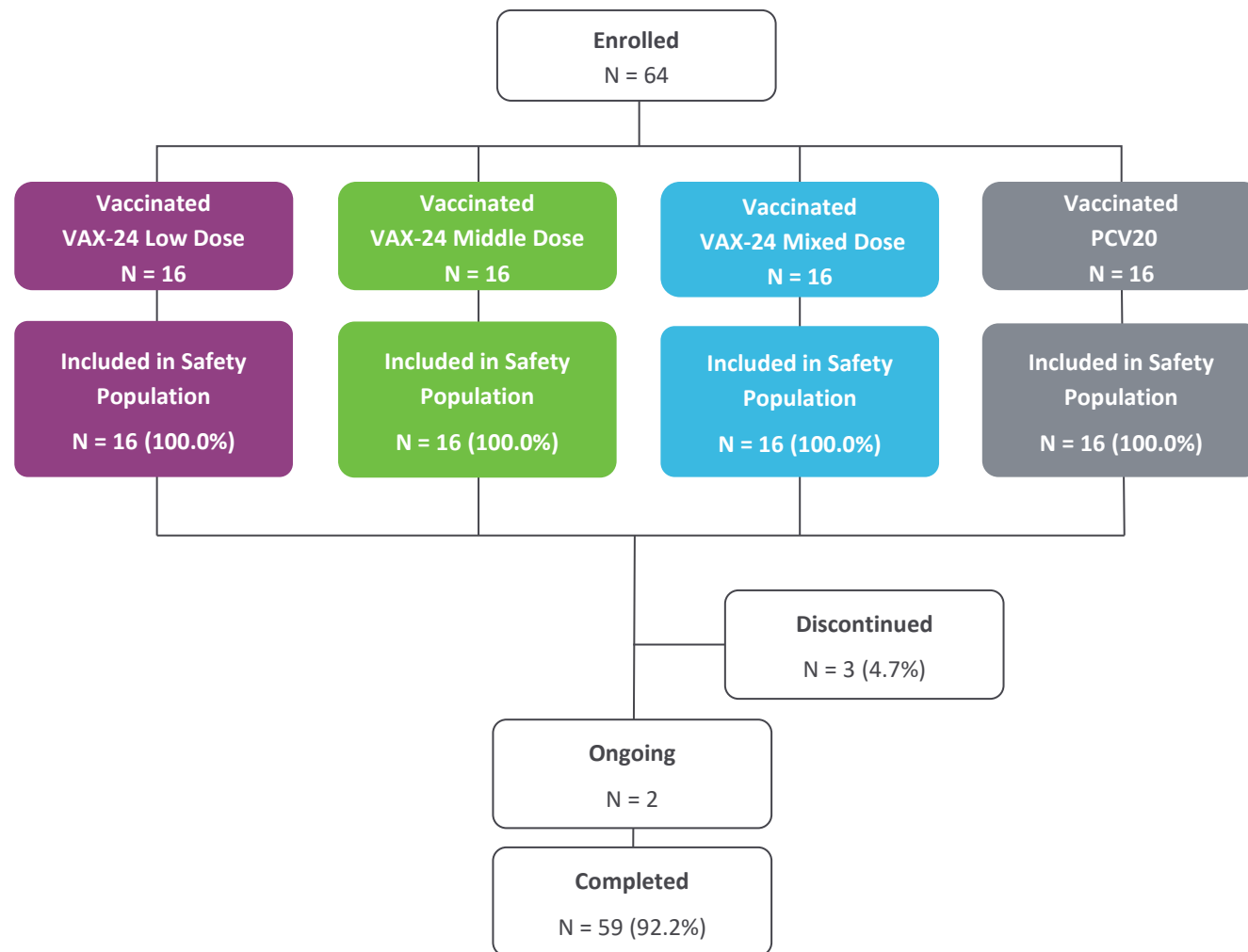
Study Safety, Tolerability and Immunogenicity Outcome Measures

	DAY 7	DAY 29	DAY 180
SAFETY AND TOLERABILITY OUTCOME MEASURES (PHASE 1 AND 2 PORTIONS OF THE STUDY)	<ul style="list-style-type: none">Solicited local reactionsSolicited systemic events	<ul style="list-style-type: none">Unsolicited adverse events (AEs)Serious adverse events (SAEs)	<ul style="list-style-type: none">SAEs and new onset of chronic illnesses (NOCI) medically attended adverse events
IMMUNOGENICITY OUTCOME MEASURES (PHASE 2 PORTION OF THE STUDY ONLY)		<ul style="list-style-type: none">Opsonophagocytic assay (OPA) geometric mean titer (GMTs)IgG geometric mean concentration (GMCs)% of subjects achieving a 4-fold rise in OPAGeometric Mean Ratios (GMR) in serotype-specific OPA	

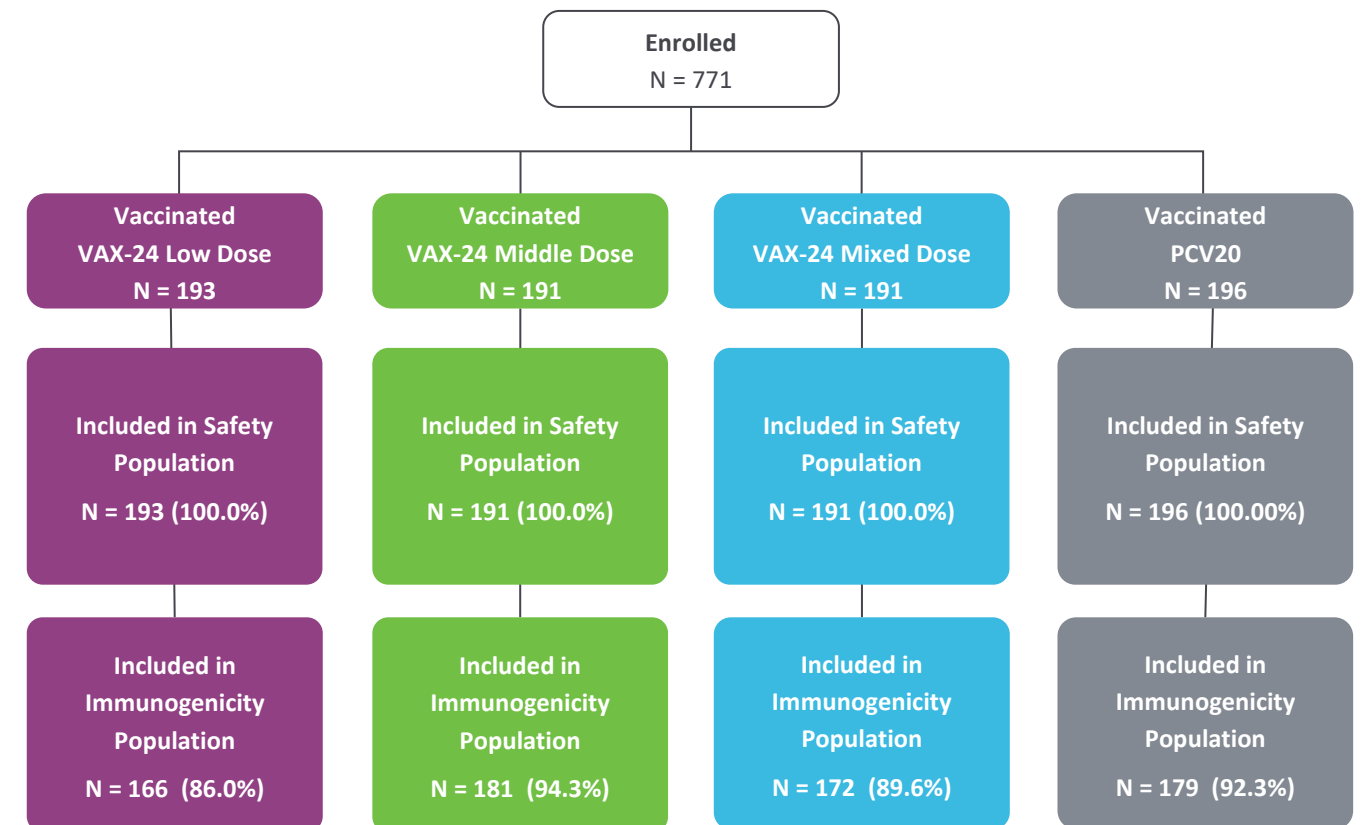
Phase 1/2 Study Disposition

Overall High Proportion of Subjects with Safety and Immunogenicity Follow-Up

Phase 1 Safety Healthy Adults 18 to 49 (n=64)



Phase 2 POC Study Healthy Adults 50 to 64 (n=771)



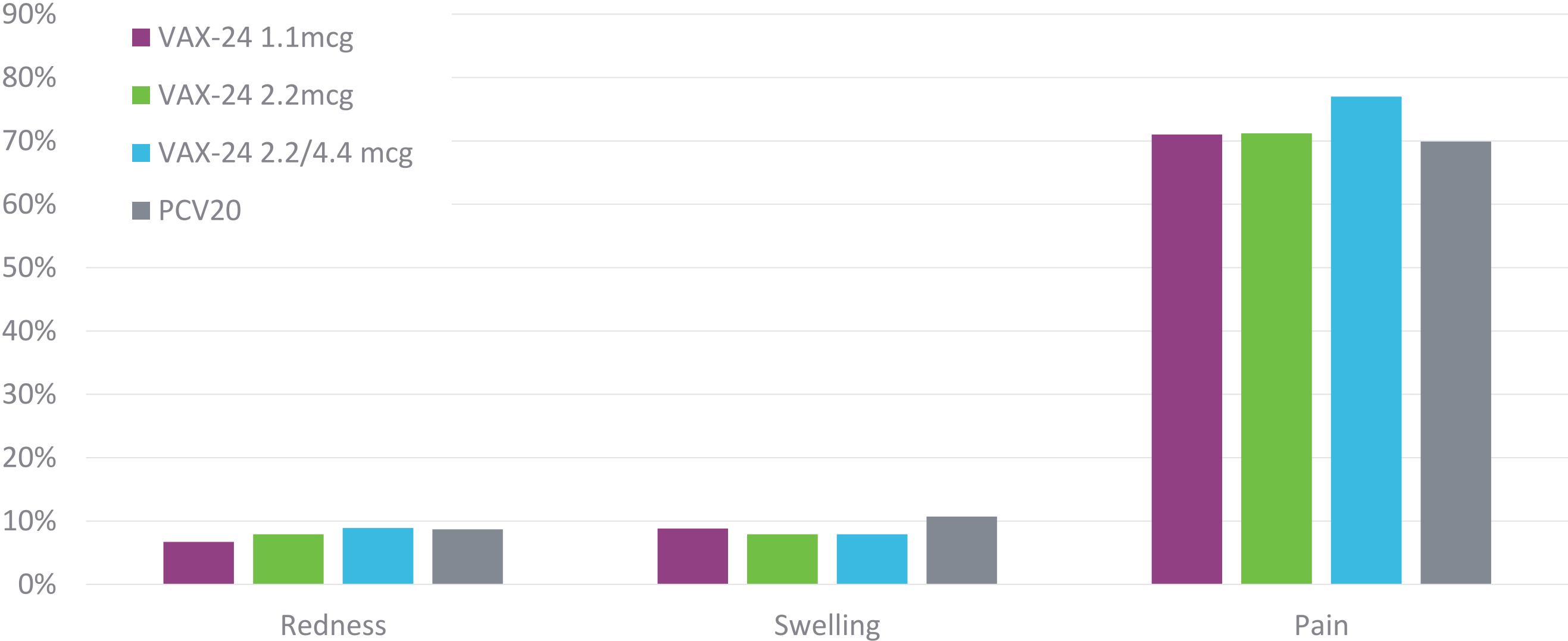
9 subjects were lost to follow-up in Phase 2

Phase 2 Demographic Population

Generally Balanced Across Cohorts and Similar for the Safety and Immunogenicity Populations

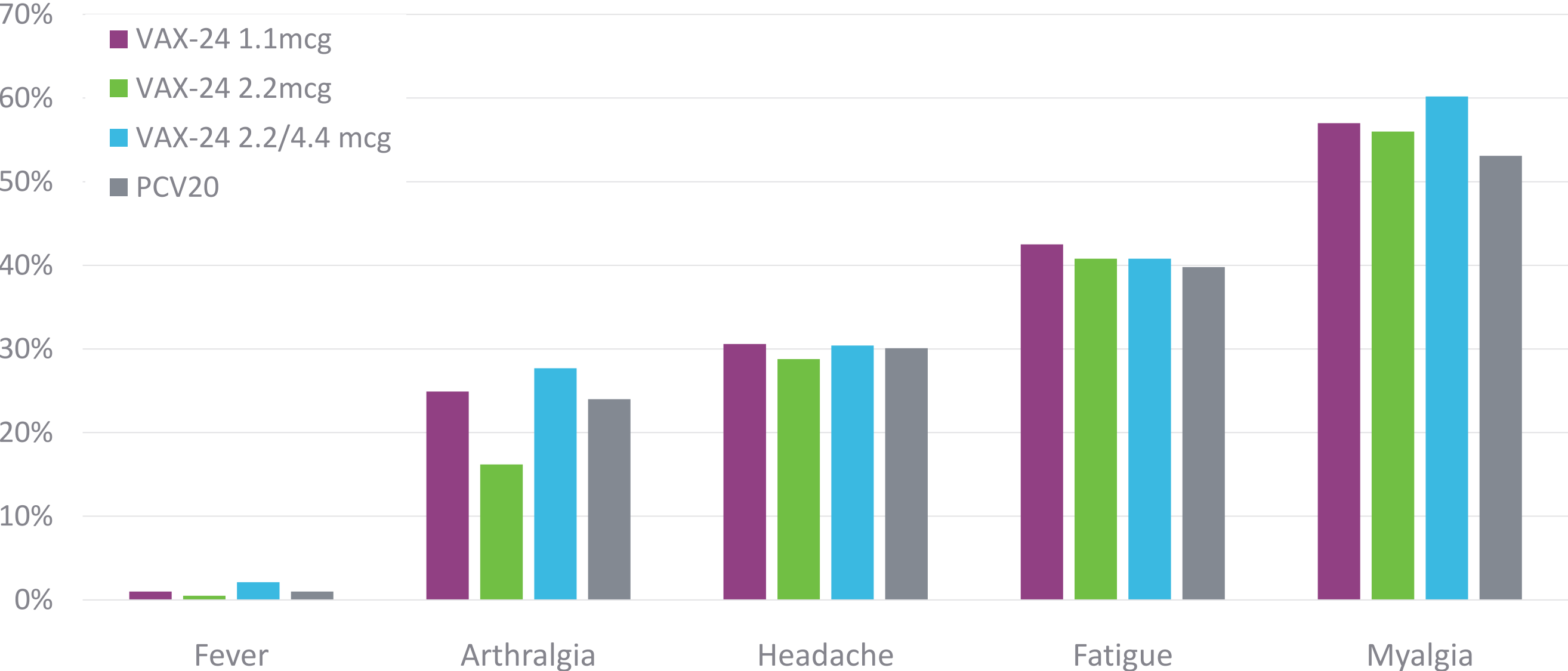
	VAX-24 – Low Dose (1.1mcg)		VAX-24 – Middle Dose (2.2mcg)		VAX-24 – Mixed Dose (2.2mcg/4.4mcg)		PCV20	
	Safety	Immunogenicity	Safety	Immunogenicity	Safety	Immunogenicity	Safety	Immunogenicity
Number of Subjects	193	166	191	181	191	172	196	179
Median age, years (range)	57.0 (50-64)	57.0 (50-64)	57.0 (50-64)	57.0 (50-64)	57.0 (50-64)	57.0 (50-64)	57.0 (50-64)	57.0 (50-64)
Sex, n (%)								
Female	110 (57.0)	96 (57.8)	119 (62.3)	113 (62.4)	134 (70.2)	125 (72.7)	129 (65.8)	118 (65.9)
Male	83 (43.0)	70 (42.2)	72 (37.7)	68 (37.6)	57 (29.8)	47 (27.3)	67 (34.2)	61 (34.1)
Race, n (%)								
White	145 (75.1)	127 (76.5)	157 (82.2)	149 (82.3)	155 (81.2)	140 (81.4)	155 (79.1)	139 (77.7)
Black	40 (20.7)	32 (19.3)	31 (16.2)	29 (16.0)	29 (15.2)	27 (15.7)	30 (15.3)	29 (16.2)
Asian	1 (0.5)	1 (0.6)	0 (0.0)	0 (0.0)	2 (1.0)	2 (1.2)	3 (1.5)	3 (1.7)
Native Hawaiian	blinded	blinded	blinded	blinded	blinded	blinded	blinded	blinded
American Indian or Native Alaskan	blinded	blinded	blinded	blinded	blinded	blinded	blinded	blinded
Other	3 (1.6)	2 (1.2)	2 (1.0)	2 (1.1)	1 (0.5)	1 (0.6)	2 (1.0)	2 (1.1)
Median Height, cm (range)	168.3 (150-200)	168.4 (150-200)	167.6 (145-193)	167.6 (145-193)	167.6 (145-193)	167.6 (145-193)	167.6 (142-196)	167.6 (142-196)
Median weight, kg (range)	87.82 (49.2-159.2)	86.87 (49.8-159.2)	86.80 (51.4-155.1)	86.80 (51.4-155.1)	83.01 (47.9-205.5)	83.10 (48.9-205.5)	82.83 (45.3-189.9)	82.70 (45.3-185.5)
Median BMI, kg/m² (range)	29.87 (18.0-55.0)	29.39 (18.8-55.0)	30.54 (18.7-52.6)	30.44 (18.7-52.6)	29.42 (18.0-57.3)	29.48 (18.0-57.3)	29.06 (17.4-72.7)	29.11 (17.4-72.7)

Local Solicited AEs Similar to PCV20 and Across Cohorts Through Day 7



Represents data for the 50-64 year age group; as of August 31, 2022.

Systemic Solicited AEs Similar to PCV20 and Across Cohorts Through Day 7



Represents data for the 50-64 year age group; as of August 31, 2022.

VAX-24 Safety Profile Similar to PCV20 and Across Cohorts

	VAX-24 – Low Dose (1.1mcg)	VAX-24 – Middle Dose (2.2mcg)	VAX-24 – Mixed Dose (2.2mcg/4.4mcg)	PCV20
Number of Subjects	193	191	191	196
Subjects with TEAE, n (%)	29 (15.0)	21 (11.0)	22 (11.5)	31 (15.8)
Subjects with SAE or NOCI, n (%)	2 (1.0)	3 (1.6)	5 (2.6)	4 (2.0)
Subjects with related SAE, n (%)	0	0	0	0
Subjects with related NOCI, n (%)	0	0	0	0
Deaths, n (%)	0	0	0	0

Represents data for the 50-64 year age group; as of August 31, 2022.

Standard Regulatory Criteria for Evaluating PCV Immunogenicity Results

CRITERIA FOR 20 SEROTYPES COMMON TO VAX-24 AND PCV20:

Non-inferiority Standard:

- Lower bound of the 2-sided 95% CI of the OPA GMT ratio is greater than 0.5

Superiority Standard:

- Lower bound of 2-sided 95% CI of the OPA GMT ratio is greater than 1.2
- Lower bound of the 2-sided 95% CI of the difference in proportions of participants with a ≥ 4 -fold increase from Day 1 to Day 29 is greater than 0

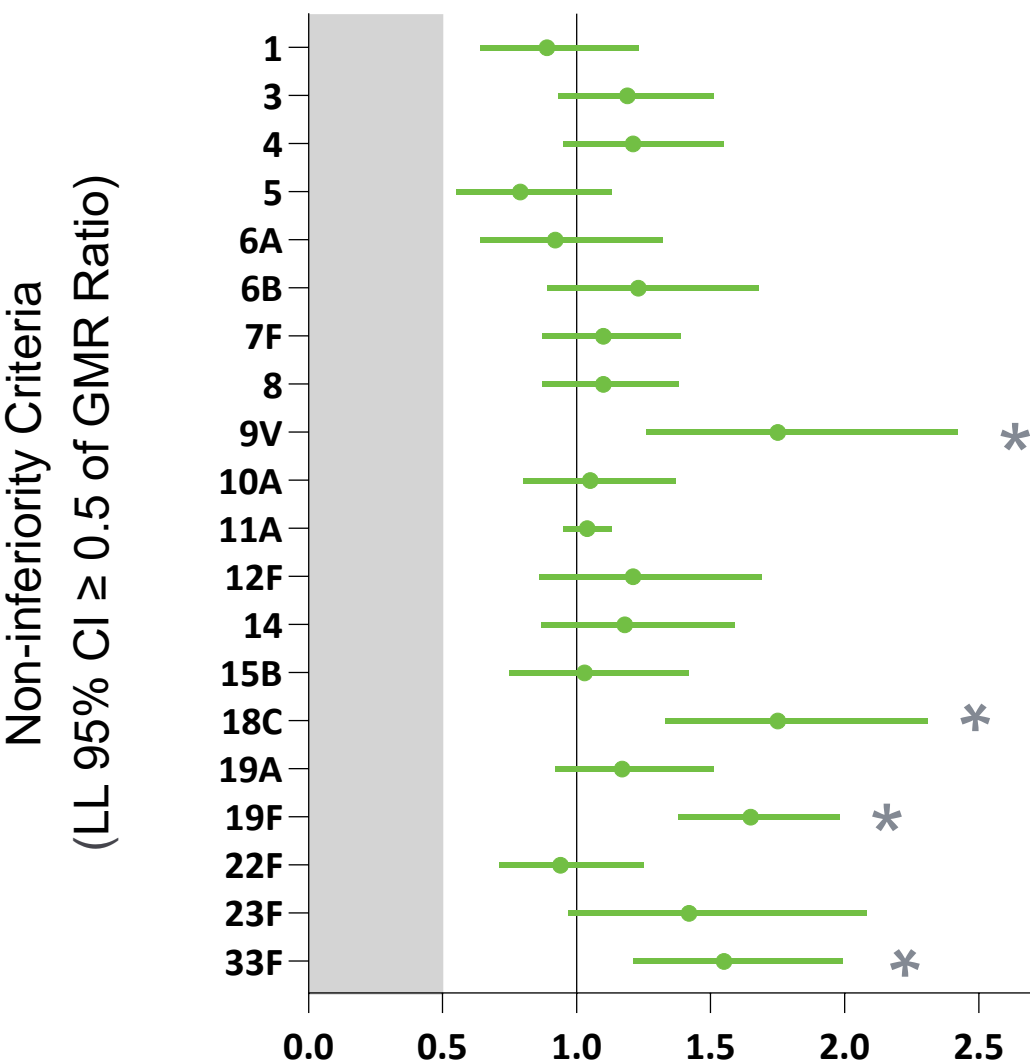
CRITERIA FOR 4 INCREMENTAL SEROTYPES IN VAX-24:

Superiority Standard:

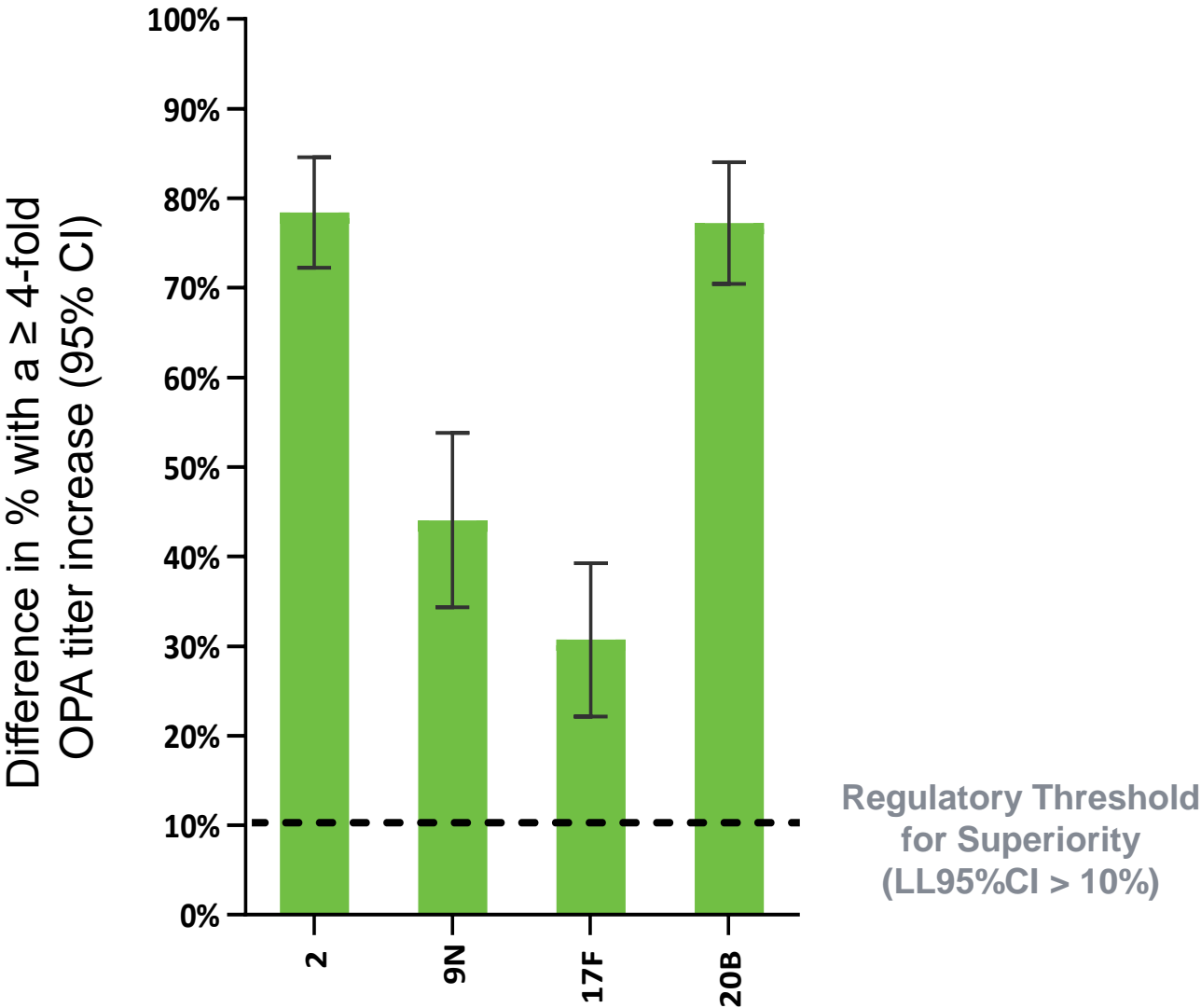
- Lower bound of the 2-sided 95% CI of the difference in the proportions of participants with a ≥ 4 -fold increase from Day 1 to Day 29 is greater than 10%
- Lower bound of the 2-sided 95% CI of the OPA GMT ratio is greater than 2.0

VAX-24 2.2mcg Dose Met Regulatory Criteria for All 24 Serotypes

Met non-inferiority standard for all 20 common serotypes for the OPA GMR of VAX-24 : PCV20



Met superiority standard for all 4 incremental serotypes in VAX-24 based on difference in 4-fold rise¹

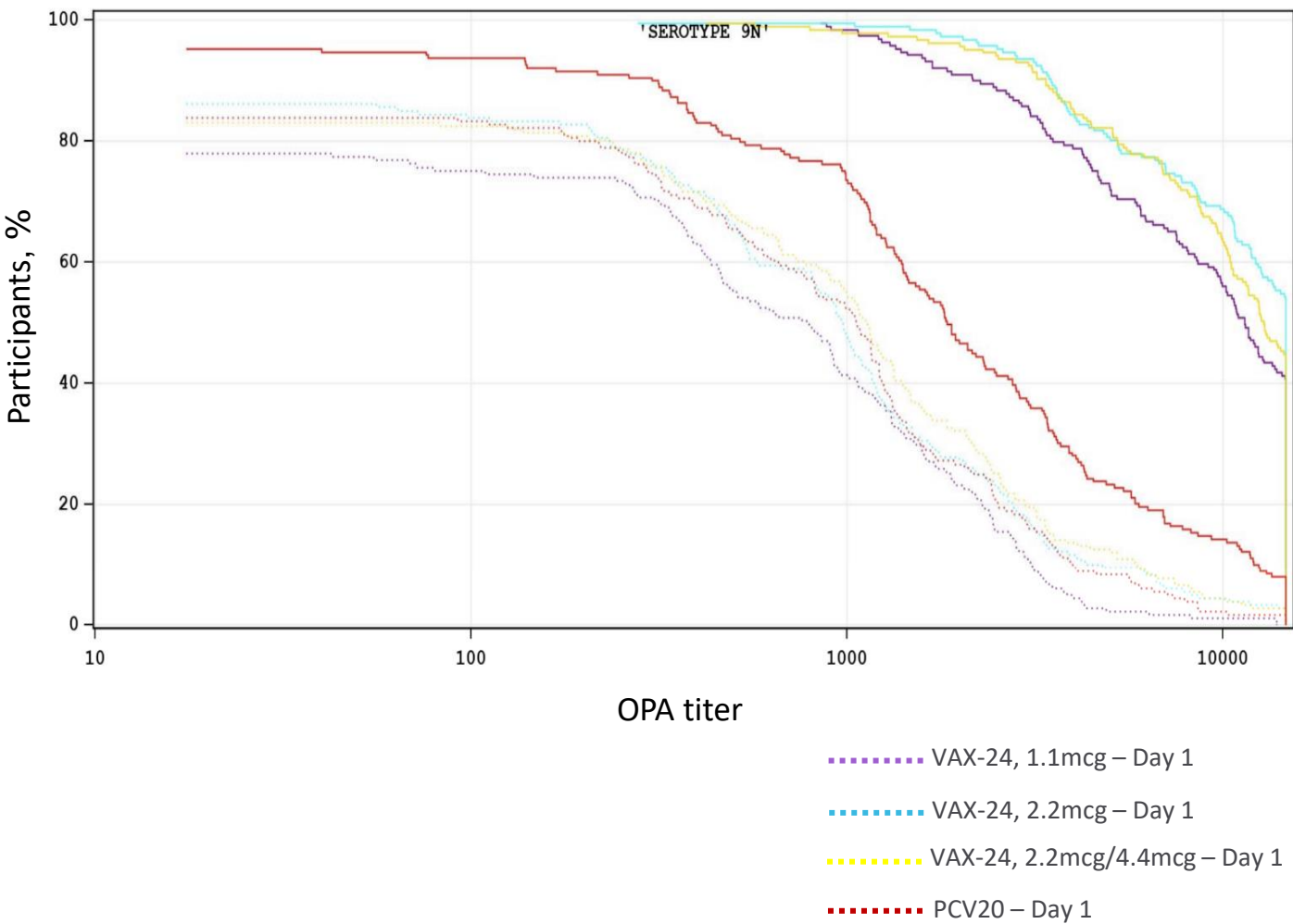


⁽¹⁾ Previous version showed % of subjects with a ≥ 4 -fold increase in absolute OPA titer (not comparative difference vs PCV20).

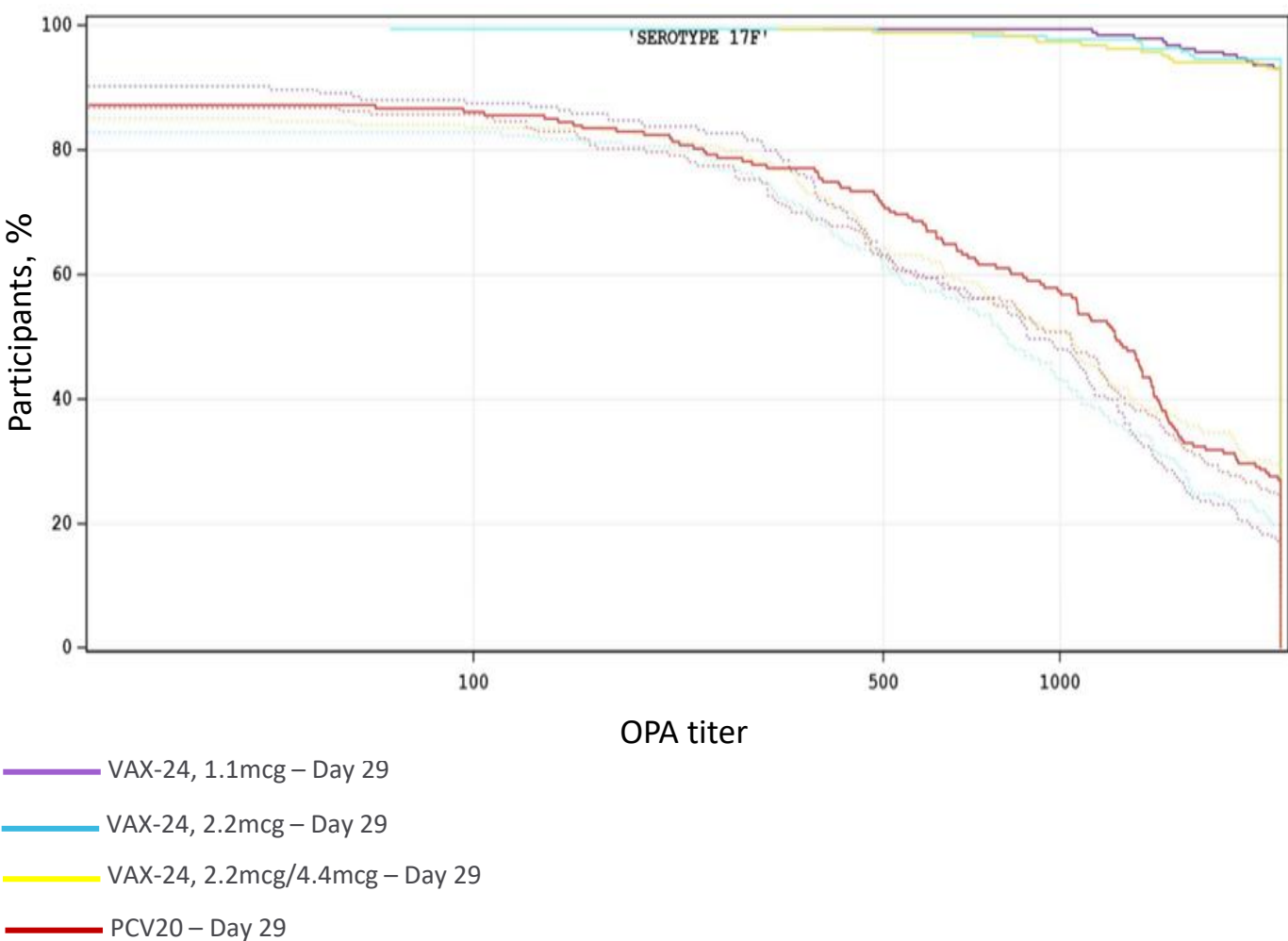
* Reached statistical significance for superiority.

Serotypes 9N and 17F Had Higher Baseline Titers, yet VAX-24 Cohorts Still Showed Substantial Improvement Exceeding Regulatory Threshold

SEROTYPE 9N:
OPA REVERSE CUMULATIVE DISTRIBUTION CURVE

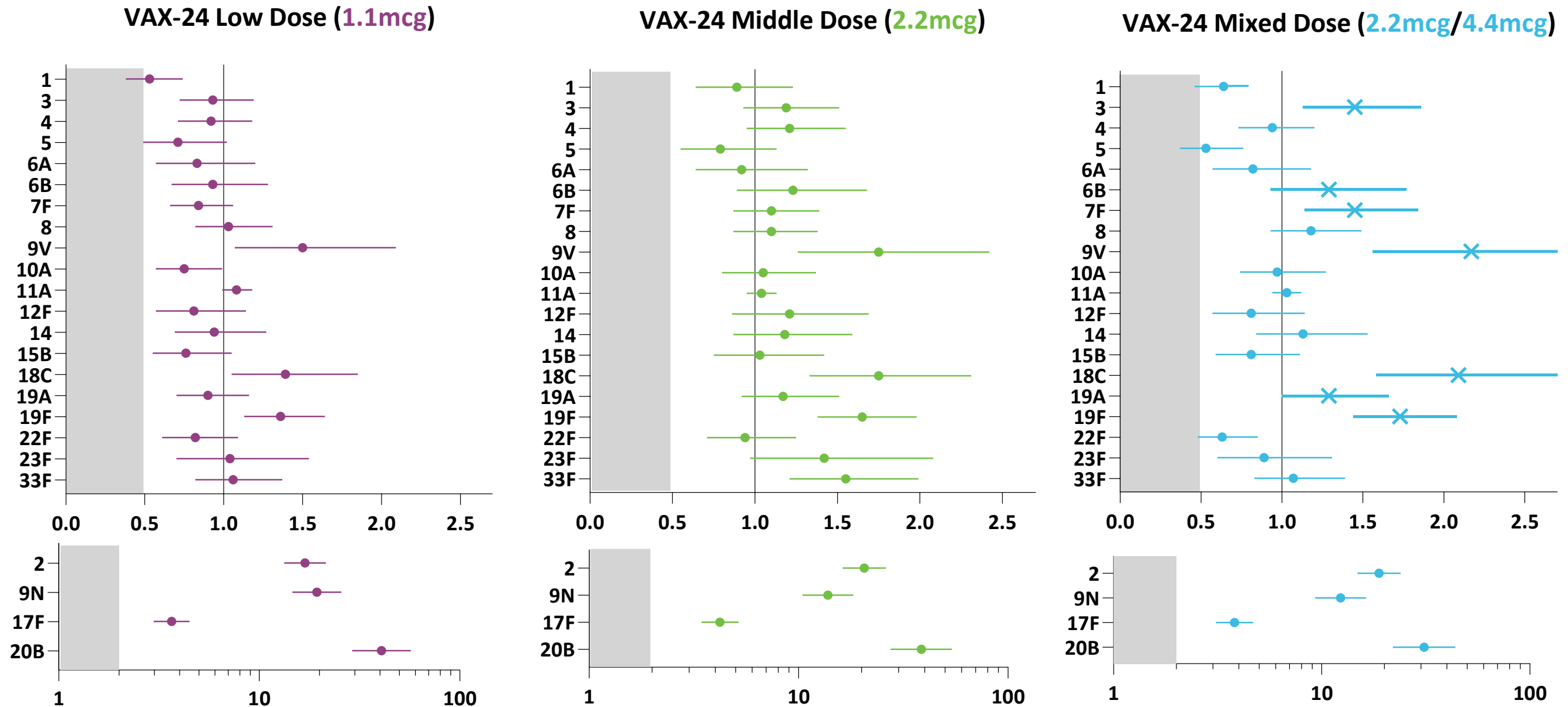


SEROTYPE 17F:
OPA REVERSE CUMULATIVE DISTRIBUTION CURVE



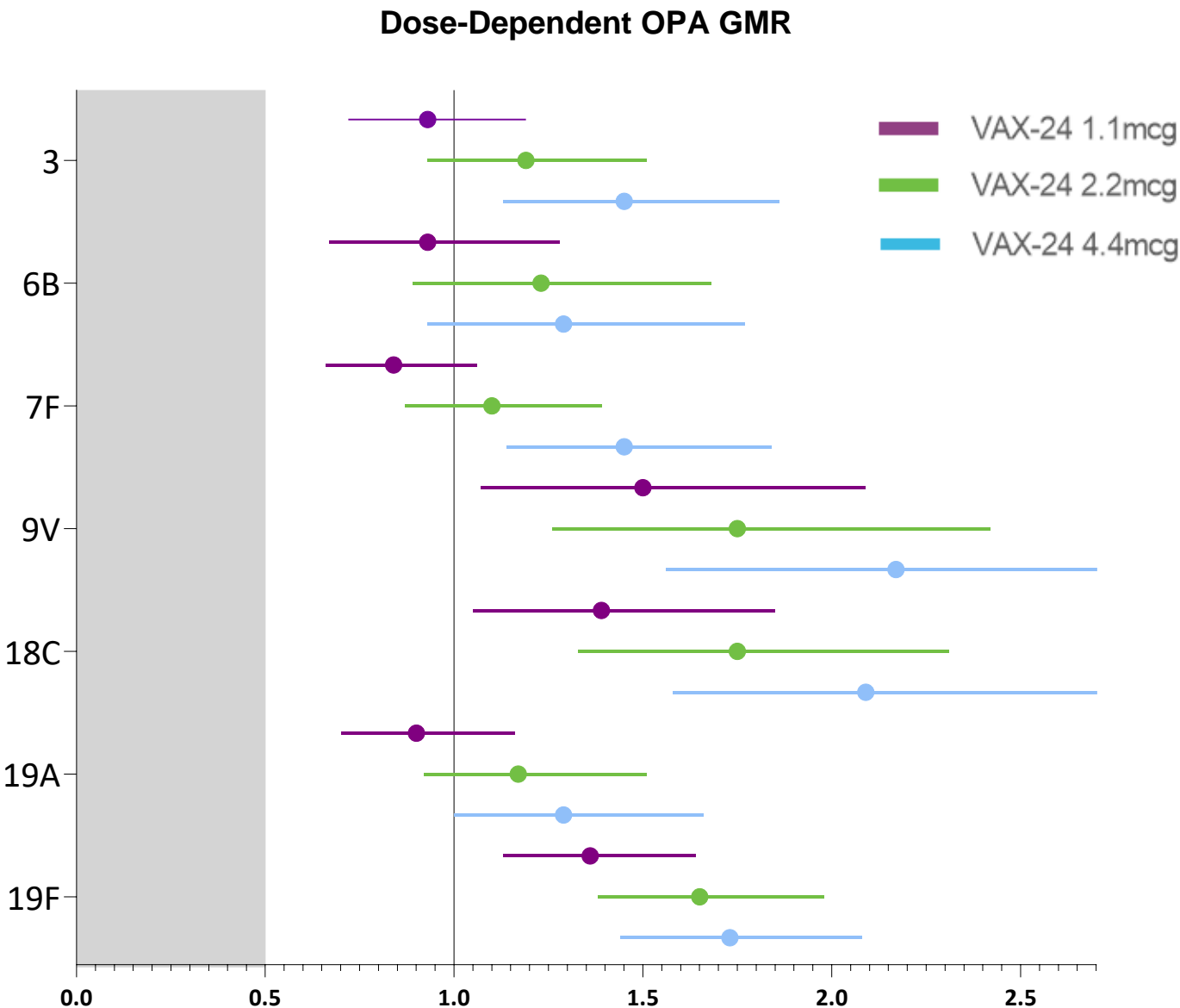
All 3 Doses Induced Immune Responses Sufficient to Move to Phase 3

2.2mcg Dose Demonstrated Higher OPA GMRs for 16 of the 20 Shared Serotypes and Will be Advanced



X = 7 VAX-24 serotypes at the 4.4mcg dose; GMR = Geometric Mean Ratio; LL = Lower Limit; CI = Confidence Interval

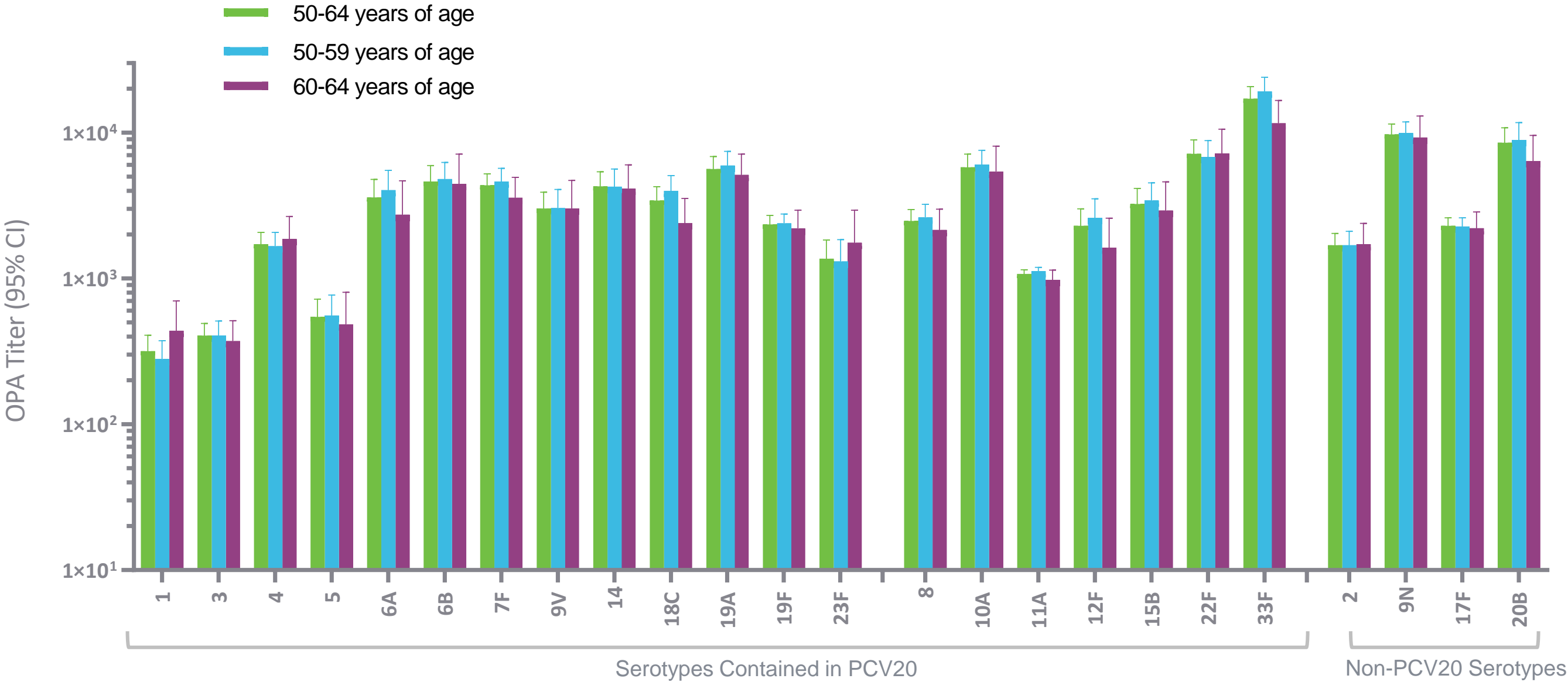
Strong Evidence of a Dose-Dependent Response for the 7 VAX-24 Serotypes Tested at 1.1mcg, 2.2mcg and 4.4mcg



4.4mcg dose deemed not necessary as 2.2mcg dose demonstrated higher OPA GMRs for all 7 serotypes tested versus PCV20.

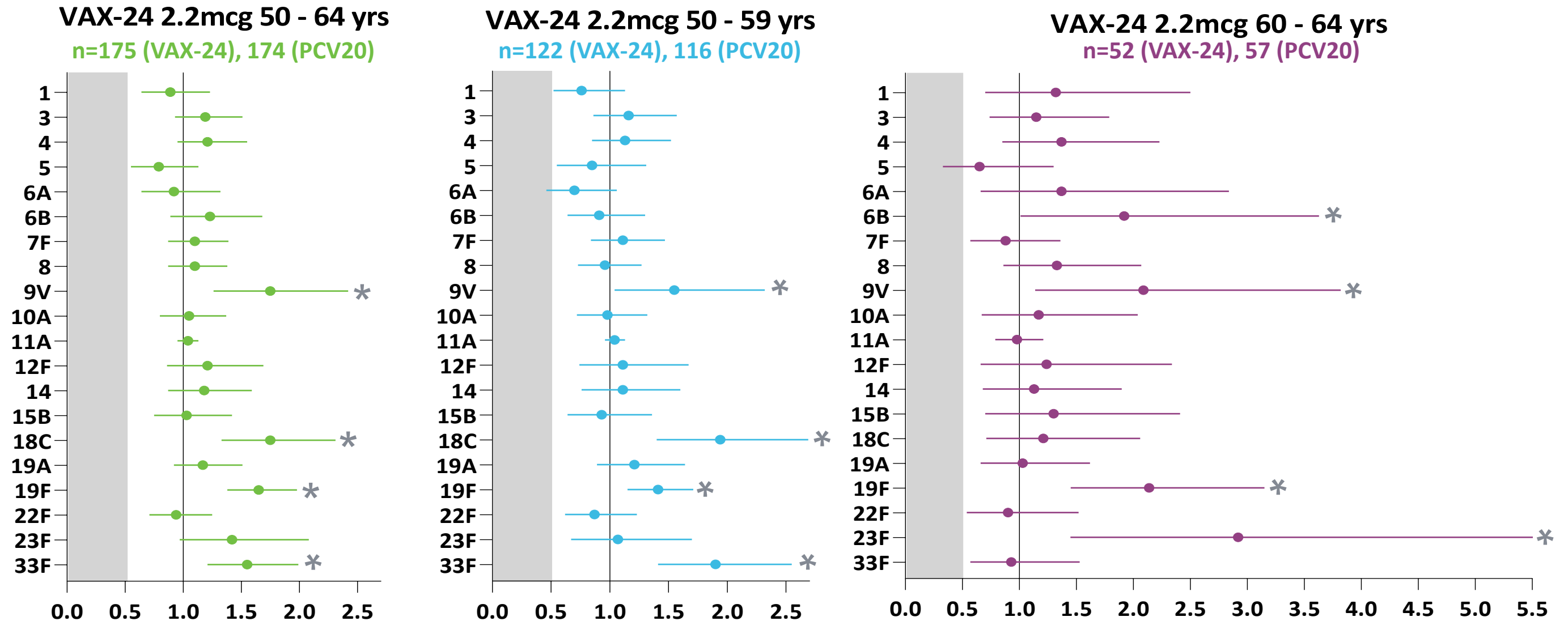
VAX-24 2.2mcg OPA Geometric Mean Titers by Serotype and Age

As Expected, Absolute Mean Titers Generally Lower in Older Population Due to Immunosenescence



Age Stratified OPA GMR for 2.2mcg VAX-24 Dose Compared to PCV20

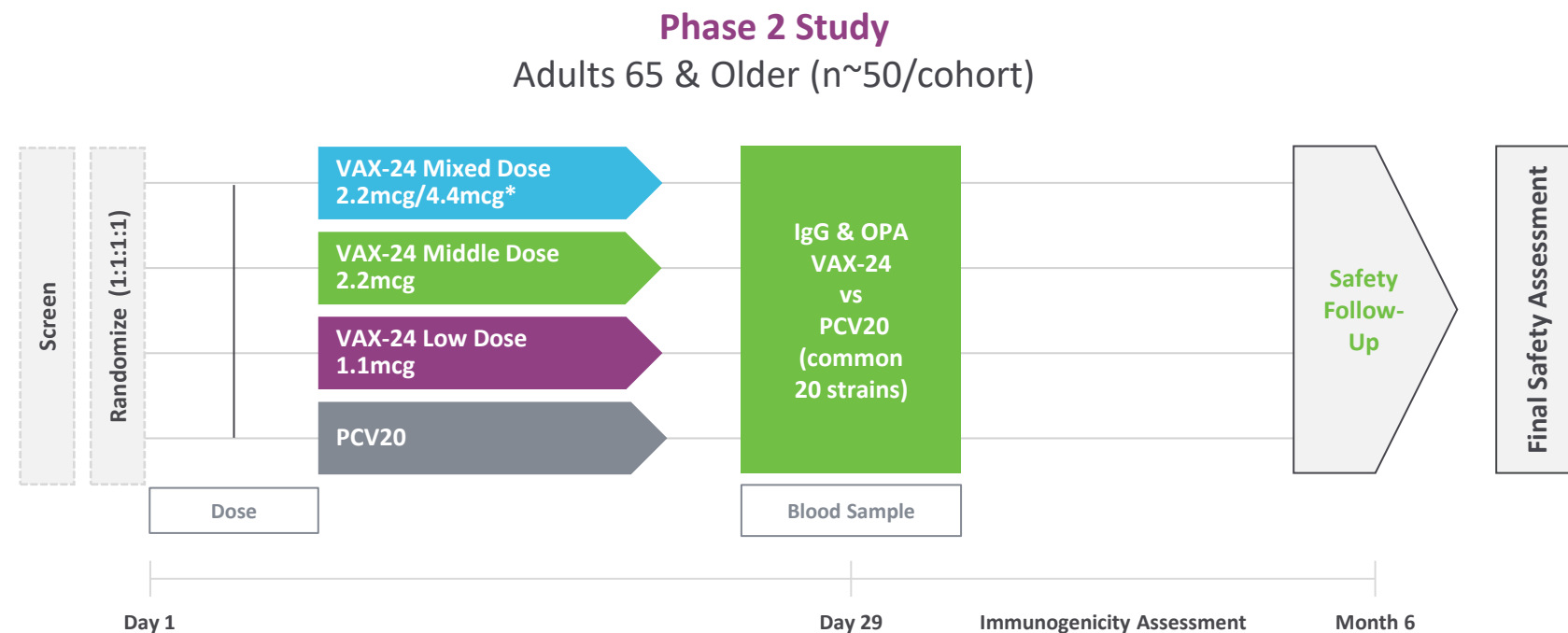
Similar Results Between Age Groups With Higher Variability in Older Population Due to Smaller Sample Size



VAX-24 Phase 2 Study in Adults Aged 65 and Older

Design of VAX-24 Phase 2 Clinical Study in Adults 65 Years & Older

Design: Randomized, Observer-Blind, Dose-Finding, Controlled Study to Evaluate Safety, Tolerability & Immunogenicity of VAX-24 vs SOC in Adults Aged 65 and Older



- The study is evaluating safety, tolerability and immunogenicity of a single injection of VAX-24 at three dose levels and compared to PCV20 in ~200 healthy adults 65 years of age and older
- Participants were randomized equally in four separate arms and 28 days after participants are dosed, serology samples collected to assess immunogenicity
- All participants will be followed for a total of six months after dosing to assess safety and tolerability
- Designed to inform Phase 3 powering; not powered to show non-inferiority

* For the VAX-24 Mixed Dose, a 4.4mcg dose is used for serotypes 3, 6B, 7F, 9V, 18C, 19A and 19F; a 2.2mcg dose is used for the remaining serotypes.

Key Objectives & Expectations for VAX-24 Phase 2 Study in Adults 65+

Topline safety, tolerability and immunogenicity data expected in Q2 2023

KEY CONSIDERATIONS

- Smaller study with ~50 subjects per cohort vs. ~200 per cohort in the Phase 2 study in adults aged 50-64
- Importantly, study not powered to demonstrate non-inferiority
- Designed to further inform powering of pivotal Phase 3 non-inferiority study and add to existing VAX-24 body of research
- Age-stratified data from Phase 2 study in adults 50-64 provide directional insights into upcoming Phase 2 results in adults aged 65+
- Topline data announcement for Phase 2 study in adults 65+ to include additional pooled data analysis combining data from both 60-64 and 65+ adult populations

IMMUNOGENICITY FOCUS AREAS

- Key immunogenicity readouts are point estimates for OPA geometric mean ratios (GMRs) for each serotype and comparability to results from Phase 2 study in adults 50-64
- If GMRs are between 0.60-0.75 or higher per serotype, prior studies have shown that is adequate to achieve the non-inferiority threshold in larger Phase 3 studies
- Lower limit of 95th percent confidence intervals not the focus of this study
- Given smaller study size, confidence intervals will be substantially wider; some may cross 0.50 threshold

OPA = opsonophagocytic activity

Regulatory and Category Landscape

Vaxcyte PCV Franchise Leverages Established Regulatory Pathway

Well-Trodden Clinical Plan Aligned with Current FDA, EMA and WHO Guidance and Precedent PCVs

CURRENT FDA, EMA & WHO GUIDANCE AND PRECEDENT

- Well-defined established surrogate immune endpoints
- No anticipated requirement for field efficacy trials

- Licensure via non-inferior immune responses vs. SOC¹
- Consistent with Merck (PCV15) & Pfizer (PCV20) BLAs^{2,3}

- Consistency across Ph 2 POC and Ph 3 pivotal studies for immune response in adult and infant programs^{4,5,6}

(1) For adults: Lower limit of the 95% CI for the OPA GMR ≥ 0.5 for each serotype comparison. For infants: Lower limit of the 95% CI for the IgG GMC ratio post dose 4 is ≥ 0.5 and LL of the 95% CI for % of subjects achieving an IgG concentration ≥ 0.35 $\mu\text{g/mL}$ 1 month after dose 3 is $< -10\%$.
(2) Clinicaltrials.gov: Pfizer clinical studies for 20vPnC NCT03512288, NCT03550313, NCT03313050, NCT03313037, NCT03760146, NCT03835975, and NCT03828617.
(3) Clinicaltrials.gov: Merck clinical studies for V114 (PCV15) NCT02987972, NCT03620162, NCT03692871, NCT03731182, NCT03480763, NCT03615482, NCT03547167, NCT03480802, and NCT03565900.
(4) WHO. Recommendations to assure the quality, safety and efficacy of pneumococcal conjugate vaccines, in WHO Expert Committee on Biological Standardization, 60th report. Geneva, Switzerland: WHO; 2013:91-521.
(5) Prevenar 13 FDA Summary Basis for Regulatory Action. BLA/STN: 125324, 2010. <https://www.fda.gov/downloads/BiologicsBloodVaccines/Vaccines/ApprovedProducts/UCM206140.pdf>. Accessed January 10, 2020.
(6) Guidelines on clinical evaluation of vaccines. EMEA/CHMP/VWP/164653/05, April 2018. https://www.ema.europa.eu/en/documents/scientific-guideline/draft-guideline-clinical-evaluation-vaccines-revision-1_en.pdf, Accessed Feb 11, 2020.

The Pneumococcal Vaccine Landscape

Vaxcyte PCV Franchise Designed to Offer Broadest Spectrum of Coverage

PCV

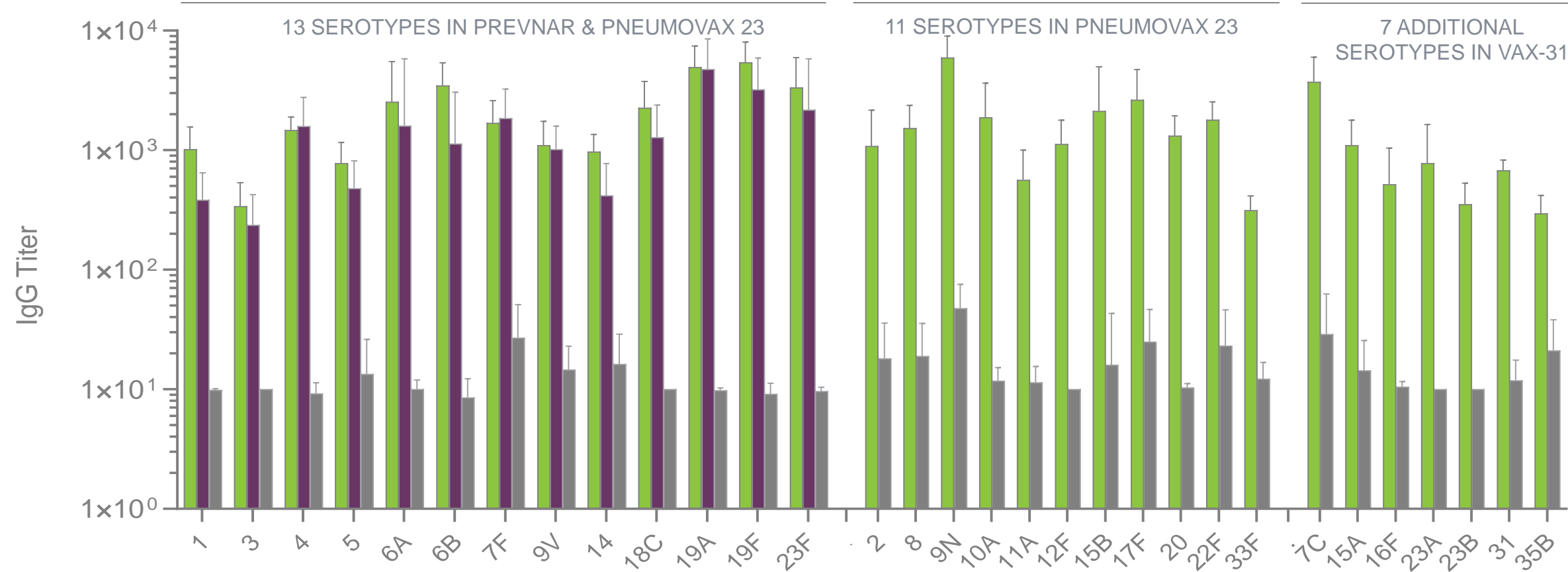
DEVELOPER	VACCINE NAME	SPECTRUM OF COVERAGE	STATUS	TARGET POPULATION: INFANTS /ADULTS	
GSK	SYNFLORIX	→ 10-VALENT	• Approved ex-US	✓	
	VAXNEUVANCE	→ 15-VALENT	• Approved in adults & infants	✓	✓
	MERCK V116	→ 21-VALENT	• Phase 3 in adults		✓
	MERCK V117	→ 21-VALENT	• Phase 1 in pediatrics	✓	
	PREVNAR 13	→ 13-VALENT	• Approved in infants	✓	✓
	PREVNAR 20	→ 20-VALENT	• Approved in adults • Infant PDUFA date 2Q:23	✓	✓
	SK BIOSCIENCE/ SANOFI-PASTEUR	→ 21-VALENT	• Phase 2 in adults, toddlers and infants	✓	✓
	VAX-24 (CARRIER-SPARING CONJUGATES)	→ 24-VALENT	• Phase 2 in adults • Phase 2 in infants expected Q2:23	✓	✓
VAXCYTE	VAX-31 (CARRIER-SPARING CONJUGATES)	→ 31-VALENT	• Preclinical POC	✓	✓
NON-PCV APPROACHES	MERCK	→ 23-VALENT	• SOC as follow-on in adults after PCV15		✓
	GSK (24/30+)	→ 24-VALENT	• Phase 2	✓	✓

SOC = standard of care; PS = polysaccharides.

VAX-31 Preclinical Data: Further Evidence of Potential for Platform

IgG Responses for VAX-31 Comparable to Prevnar 13 & Superior to Polysaccharide-only Serotypes

- VAX-31 incorporates VAX-24 strains plus emerging serotypes responsible for significant IPD & antibiotic resistance.
- Demonstrates spectra scalability of platform and reproducibility of VAX-31 POC data with conjugates produced at larger scale.



Note: +/- 95% confidential interval.

Non-PCV Pipeline

VAX-A1: Group A Strep Conjugate Vaccine Program

Novel Conjugate Vaccine Designed to Provide Universal Protection

UNMET NEED

- Group A Strep results in 700M cases of illness annually worldwide, including pharyngitis, or strep throat, and certain severe invasive infections such as sepsis, necrotizing fasciitis and toxic shock syndrome.
- Upgraded CDC threat given significant source of antibiotic Rxs driving resistance which has nearly tripled in past decade
- Responsible for post-infectious immune-mediated rheumatic heart disease leading to over 300K deaths in 2015
- Highly prevalent in children and rate of invasive disease in adults > 65 has more than doubled (exceeding IPD rate in adults)

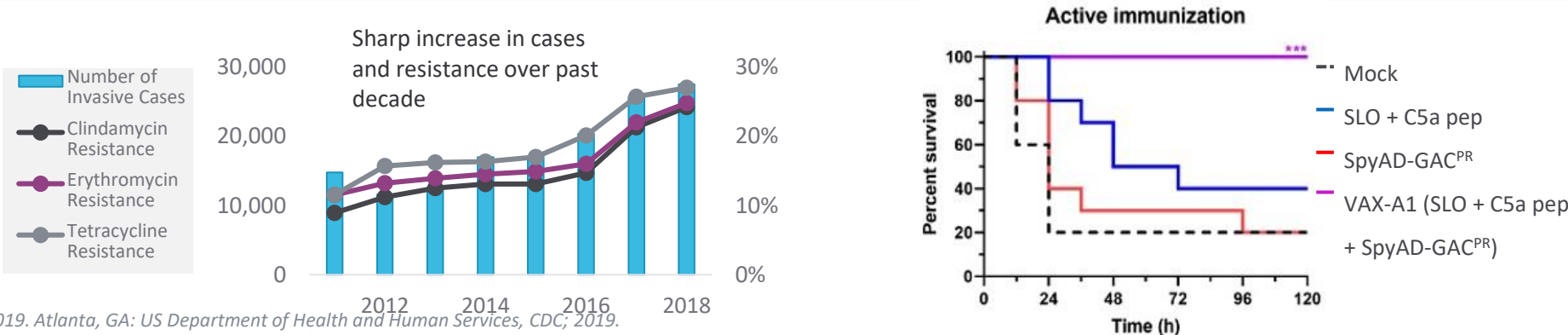
VAX-A1: BROAD-SPECTRUM, MONOVALENT CONJUGATE VX

- Designed to confer robust, boostable and durable protection against a broad spectrum of subtypes of Group A Strep
- Leverages site-specific conjugation to disease-specific carrier to expose mapped T- and B-cell epitopes
- Proprietary conserved antigen – Polyrrhamnose – conjugated to an immunogenic disease-specific carrier along with two conserved virulence factors

PROGRAM STATUS

- Partially funded by grant from CARB-X (consortium of BMGF, Wellcome Trust, US Biodefense Agency (BARDA)); received \$6.6M to date, with total potential funding of up to \$14.6M inclusive of grants to date
- Initiated IND-enabling activities in 2H:21
- Development of VAX-A1 continues to advance and further information about the anticipated timing of an IND application will be provided as the program progresses¹

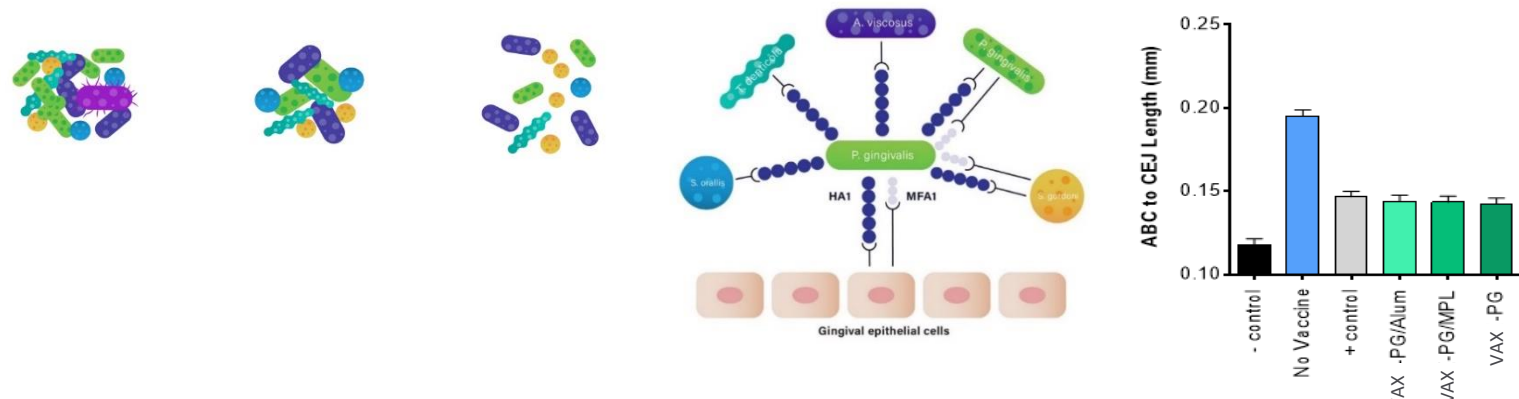
KEY DATA



(1) Guidance provided as of February, 2023.
CDC. Antibiotic Resistance Threats in the United States, 2019. Atlanta, GA: US Department of Health and Human Services, CDC; 2019.
BMGF = Bill & Melinda Gates Foundation.

VAX-PG: Periodontitis Vaccine Program

Therapeutic Vaccine Targeting Gingipains to Address Large, Underserved Market

UNMET NEED	<ul style="list-style-type: none">Periodontal disease is a chronic oral inflammatory disease leading to destruction of soft & hard tissues supporting the teethHighly prevalent: estimated 65 million US adults afflictedPeriodontal disease caused an estimated loss of \$330.6 billion in the US and Europe in 2018, with the direct costs exceeding \$6 billionAssociated with increased risk of heart attack, stroke, cardiovascular disease and Alzheimer's Disease
VAX-PG: MULTIVALENT THERAPEUTIC VACCINE	<ul style="list-style-type: none">Incorporates proprietary combination of known virulence factors of keystone pathogenPreclinical model demonstrated protein-specific IgG response following immunization and protected mice from <i>P. gingivalis</i>-elicited oral bone lossInitial goal to develop therapeutic vaccine that slows or stops disease progression
PROGRAM STATUS	<ul style="list-style-type: none">Preclinical proof of concept published in Journal of Clinical PeriodontologyA final vaccine candidate for VAX-PG was nominated in Q4 2022 and the program continues to advance¹
MOA & KEY DATA	<ul style="list-style-type: none">Restoration of balanced microbiota by interrupting underlying inflammatory condition <div data-bbox="763 1124 2285 1524"><p>The diagram illustrates the mechanism of action (MOA) of the VAX-PG vaccine. It shows a cross-section of the oral cavity with gingival epithelial cells at the bottom. Above them, various bacteria are depicted, including <i>A. viscosus</i>, <i>P. gingivalis</i>, and <i>S. oralis</i>. The vaccine targets the gingipains (HA1 and MFA1) produced by <i>P. gingivalis</i>, which are shown as blue dots. The challenge study results are presented in a bar chart showing the ABC to CEJ Length (mm) for different groups: - control (approx. 0.12), No Vaccine (approx. 0.20), + control (approx. 0.15), VAX -PG/Alum (approx. 0.14), VAX -PG/MPL (approx. 0.14), and VAX -PG (approx. 0.14). The chart indicates that immunization with all formulations of VAX-PG provided significant protection against oral bone loss compared to the unvaccinated control (p<0.01).</p></div>

(1) Guidance provided as of February 27, 2023.
Huang et.al. J Clin Periodontol. 2019 Feb;46(2):197-205.

VAX-GI: Shigella Vaccine Program

Novel Shigella Vaccine

UNMET NEED

- Shigella is a bacterial illness with no available preventative treatment
- Affects an estimated 180 million people worldwide each year and results in approximately 164,000 deaths annually, mostly among children under five years of age in low-income and middle-income settings¹
- With the aim of reducing morbidity and mortality due to the disease, the World Health Organization's lists Shigella vaccine development as a priority goal²

VAX-GI: NOVEL SHIGELLA VACCINE

- Development collaboration with the University of Maryland, Baltimore; supported with funding by two NIH R01 grants for five years
- Will pursue conjugate and protein-only approaches simultaneously
- Conjugate approach: IpaB-LPS/IpaH/VirG; Protein-only approach: IpaB/IpaH/VirG

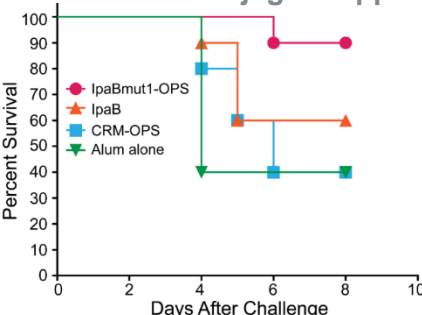
PROGRAM STATUS

- New program added to preclinical pipeline
- Decision on final candidate to be determined by a human challenge study conducted at the University of Maryland, Baltimore
- Currently optimizing process for scale-up and production

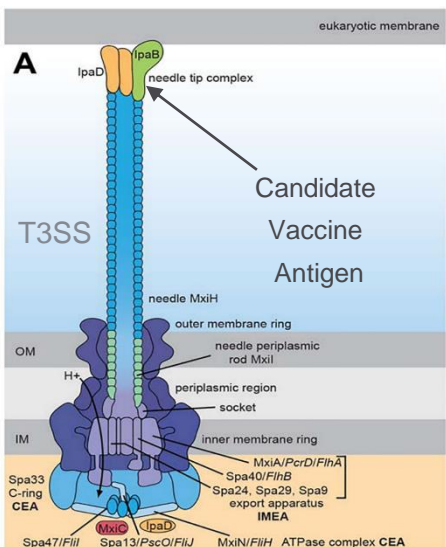
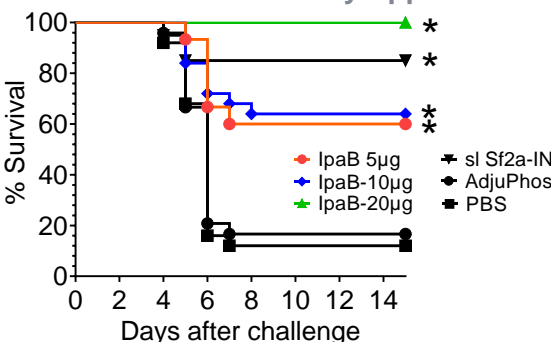
MOA & KEY DATA

- Targeting IpaB inhibits assembly of T3SS and toxin delivery to immune cells
- Opsonophagocytosis and killing of bacteria

VAX-GI: Conjugate Approach



VAX-GI: Protein Only Approach



(1) Lancet. 2018 Feb 24;391(10122):801-812.
(2) <https://www.who.int/publications/i/item/9789240036741>.

Key Corporate Highlights



Large Market Opportunity for Lead PCV Franchise

Cell-Free Protein Synthesis Platform

Disciplined Target Selection

Robust Pipeline with Multiple Novel Vaccines

Aligned Critical Resources