STATISTICAL ANALYSIS PLAN
for
PATH Protocol CVIA 076

Study Title:

A first-in-human, phase 1, randomized, observer-blind, controlled study to assess the safety and immunogenicity of novel live attenuated type 1 and type 3 oral poliomyelitis vaccines in healthy adults

Version 3.0

DATE: 13 April 2023

NCT ID: NCT04529538

Protocol Number Code:	CVIA 076
Development Phase:	Phase 1
Investigational Products:	**Novel oral poliomyelitis vaccines (nOPVs):** • Novel OPV type 1 (nOPV1), containing $10^{6.5}$ CCID50/dose, manufactured by Bio Farma, Indonesia • Novel OPV type 3 (nOPV3), containing $10^{6.5}$ CCID50/dose, manufactured by Bio Farma, Indonesia **Active control monovalent oral poliomyelitis vaccines (mOPVs), Sabin:** • Sabin mOPV1 containing not less than $10^{6.0}$ CCID50/dose, manufactured by Bio Farma (Indonesia) • Sabin mOPV3 containing not less than $10^{5.8}$ CCID50/dose, manufactured by Bio Farma (Indonesia)
Form/Route:	Oral
Indication Studied:	Poliomyelitis
Sponsor:	PATH 2201 Westlake Avenue, Suite 200, Seattle, WA 98121 USA
Protocol Version:	5.0
Date of the Analysis Plan:	13APR2023
Version Number:	3.0

This study was performed in compliance with Good Clinical Practice.

CVIA 076 STATISTICAL ANALYSIS PLAN REVISION HISTORY

Version Number	Version Date	Summary of Changes
1.0	22SEP2021	Finalized Document
2.0	21APR2022	Updated plan to incorporate the inclusion of the fourth clinical site, Pharmaron CMC Inc. Updated various sections to match updates made to versions 4.0 and 5.0 of the protocol.
3.0	13APR2023	Updated analysis populations: added separate Reactogenicity Population and updated definition of Safety Population to exclude participants for whom possible transmission events were identified; added Sensitivity Analysis Per Protocol Population and associated tables for analyses excluding the immunogenicity results obtained in March 2023. Added listing for unsolicited adverse events occurring in participants excluded from non-reactogenicity safety summaries. Revised definition of culture-positivity for viral shedding to log10 CCID50 strictly greater than 2.75. Revised table titles and footnotes to standardize format and language (including replacement of all instances of ‘subject’ with ‘participant).

[redacted]

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LIST OF ABBREVIATIONS

Ab	Antibody
AE	Adverse Event
ALT	Alanine Transaminase
AUC	Area Under the Curve
BSL-2	Biosafety Level 2
CBC	Complete Blood Count
$CCID_{50}$	Cell Culture Infectious Dose 50%
CDC	United States Centers for Disease Control and Prevention
cDNA	Complementary Deoxyribonucleic Acid
CFR	Code of Federal Regulations
CI	Confidence Interval
CONSORT	Consolidated Standards of Reporting Trials
COVID-19	Coronavirus Disease 2019
CRE	Cis-acting Replication Element
CRF	Case Report Form
CRO	Contract Research Organization
CSR	Clinical Study Report
CTA	Clinical Trial Agreement
cVDPV	circulating Vaccine-Derived Poliovirus
DM	Data Management
DRM	Data Review Meeting
eCRF	Electronic Case Report Form
EIA	Enzyme Immunoassay
FAP	Full Analysis Population
FDA	(United States) Food and Drug Administration
FOCP	Female of Childbearing Potential
GCP	Good Clinical Practice
GMFR	Geometric Mean Fold Rise
GMT	Geometric Mean Titer

HBV	Hepatitis B Virus
HCV	Hepatitis C Virus
HIV	Human Immunodeficiency Virus
IB	Investigator's Brochure
ICF	Informed Consent Form
ICH	International Council for Harmonisation
ICMJE	International Committee of Medical Journal Editors
IDMC	Independent Data Monitoring Committee
IEC	Independent Ethics Committee
IgA	Immunoglobulin A
IgG	Immunoglobulin G
IND	Investigational New Drug
IPV	Inactivated Poliovirus Vaccine
IRB	Institutional Review Board
IWRS	Interactive Web Response System
LLN	Lower Limit of Normal
LLOQ	Lower Limit of Quantification
MedDRA	Medical Dictionary for Regulatory Activities
mg	milligram
mL	milliliter
mOPV	monovalent Oral Poliomyelitis Vaccine (Sabin)
mOPV1	monovalent Oral Poliomyelitis Vaccine (Sabin) type 1
mOPV3	monovalent Oral Poliomyelitis Vaccine (Sabin) type 3
NAb	Neutralizing Antibody
NGS	Next Generation Sequencing
NRA	National Regulatory Authority
nOPV	novel Oral Poliomyelitis Vaccine
nOPV1	novel Oral Poliomyelitis Vaccine type 1
nOPV3	novel Oral Poliomyelitis Vaccine type 3

OPV	Oral Poliomyelitis Vaccine
PCR	Polymerase Chain Reaction
PI	Principal Investigator
PID	Participant Identification
PP	Per-protocol
PPP	Per-Protocol Population
PSRT	Protocol Safety Review Team
PT	Preferred Term
RNA	Ribonucleic Acid
SAE	Serious Adverse Event
SAP	Statistical Analysis Plan
SAPPP	Sensitivity Analysis Per-Protocol Population
SD	Standard Deviation
SIE	Shedding Index Endpoint
SMP	Study Monitoring Plan
SOC	System Organ Class
SOP	Standard Operating Procedure
SUSAR	Suspected Unexpected Serious Adverse Reaction
ULN	Upper Limit of Normal
ULOQ	Upper Limit of Quantification
US(A)	United States (of America)
UTR	Untranslated Region
VAPP	Vaccine-Associated Paralytic Polio
VDPV	Vaccine-Derived Poliovirus
VS	Vital Signs
WBC	White Blood Cell
WHO	World Health Organization
WPV	Wild Poliovirus

1. PREFACE

This Statistical Analysis Plan (SAP) for "A first-in-human, phase 1, randomized, observer-blind, controlled study to assess the safety and immunogenicity of novel live attenuated type 1 and type 3 oral poliomyelitis vaccines in healthy adults" (PATH protocol CVIA 076) describes and expands upon the statistical information presented in the protocol.

This document describes all planned analyses and provides reasons and justifications for these analyses. It also includes sample tables, figures, and listings planned for the final analyses (see Appendix 1 , Appendix 2 and Appendix 3). Regarding the final analyses and Clinical Study Report (CSR), this SAP follows the International Council for Harmonisation of Technical Requirements for Registration of Pharmaceuticals for Human Use (ICH) Guidelines, as indicated in Topic E3 (Structure and Content of Clinical Study Reports), and more generally is consistent with Topic E8 (General Considerations for Clinical Trials) and Topic E9 (Statistical Principles for Clinical Trials). The structure and content of the SAP provides sufficient detail to meet the requirements identified by the US Food and Drug Administration (FDA) and ICH, while all work planned and reported for this SAP will follow internationally accepted guidelines published by the American Statistical Association and the Royal Statistical Society for statistical practice.

This document contains a review of the study design, general statistical considerations, comprehensive statistical analysis methods for efficacy and safety outcomes, and a list of proposed tables and figures. Any deviation from this SAP will be described and justified in protocol amendments and/or in the CSR, as appropriate. The reader of this SAP is encouraged to also review the study protocol for details on conduct of the study and the operational aspects of clinical assessments.

2. INTRODUCTION

Global efforts to immunize children with Sabin strain oral poliomyelitis vaccines (OPVs) have reduced wild poliovirus cases by 99.9% since 1988. These vaccines have been demonstrated to be safe and interrupt person-to-person spread of polioviruses. However, on extremely rare occasions, use of OPV can result in cases of polio due to vaccine-associated paralytic polio (VAPP) and circulating vaccine-derived poliovirus (cVDPV). Central to both VAPP and disease induced by cVDPVs is reversion of the vaccine strain to a more neurovirulent phenotype, which occurs during intestinal replication in vaccine recipients. These reverted viruses can either cause disease in the vaccine recipient or be transmitted to contacts or community members. In addition, the ability of cVDPVs to survive in the environment and be transmitted to others without being detected through acute flaccid paralysis surveillance, given most infections are asymptomatic, is a major risk to the entire polio eradication effort. The risk of VAPP and cVDPV, in particular, resulted in the decision to globally discontinue routine use of Sabin type 2 OPV (OPV2) in April 2016 and the planned withdrawal of Sabin types 1 and 3 OPV (OPV1 and OPV3, respectively) in the coming decade. The intent of the novel OPV program is to develop more genetically stable versions of type 1 and type 3 oral poliomyelitis vaccines to reduce the risk of VAPP and cVDPV from vaccine administered to combat outbreaks by types 1 and 3 polioviruses.

Genetically modified candidate viruses for both polioviruses type 1 and type 3 have been developed that retain similar immunogenicity and antigenicity to the parental Sabin OPV strains in animal models, while demonstrating significantly less potential to revert during cell culture passaging. These viruses also appear to have a reduced neurovirulence in a transgenic mouse disease model. The proposed indication and usage are for prevention of type 1 or type 3 poliovirus disease and transmission during outbreaks of either wild-type poliovirus or cVDPV.

The proposed study is the first-in-human evaluation of novel OPVs types 1 and 3 (nOPV1 and nOPV3, respectively) in healthy males and females, from 18 to 45 years of age (inclusive) at the time of enrollment. Should results in adults indicate the nOPVs are safe and have demonstrable immunogenicity, they will progress to phase 2 testing in target pediatric populations (young children and then infants).

A similar novel, genetically stable OPV type 2 (nOPV2) strain has advanced into phase 2 clinical development (adults in Belgium and young children and infants in Panama) with encouraging study results. Since nOPV1 and nOPV3 are chimeric viruses with novel type 2 non-structural regions coupled with Sabin-1 or -3 structural proteins, the clinical experience to date with nOPV2 is relevant.

2.1. Purpose of the Analyses

This Statistical Analysis Plan describes the statistical methodology and summaries required to assess the demographics, safety, reactogenicity and immunogenicity of nOPV1 and nOPV3 compared to mOPV1 and mOPV3, when administered to 18 through 45-year-old healthy males and females.

3. STUDY OBJECTIVES AND ENDPOINTS

Study objectives are listed here as in the protocol.

3.1. Study Objectives

3.1.1. Primary Objective

3.1.1.1. Safety

1. To evaluate the safety and tolerability of nOPV1 and nOPV3 in healthy adults.

3.1.2. Secondary Objectives

3.1.2.1. Immunogenicity

1. To assess the humoral immune responses (neutralizing antibody titers) elicited by nOPV1 and nOPV3, and compare to that of mOPV1 and mOPV3, respectively, in healthy adults.

3.1.2.2. Fecal Shedding of Study Vaccine Viruses

1. To assess the duration of fecal shedding (as determined by PCR) of nOPV1 and nOPV3 after the initial dose and compare to that of the homotypic mOPVs.
2. To assess the rate of fecal shedding (as determined by PCR) of nOPV1 and nOPV3 and compare to that of the homotypic mOPVs in participants with an exclusive IPV prior vaccination history.
3. To assess the extent of shedding (as determined by an SIE and the AUC) of nOPV1 and nOPV3 and compare to that of the homotypic mOPVs in participants with an exclusive IPV prior vaccination history.

3.1.3. Exploratory Objectives

1. To assess the duration of fecal shedding (as determined by PCR) of nOPV1 and nOPV3 after the second dose and compare to that of the homotypic mOPVs.
2. To assess the rate of fecal shedding (as determined by PCR) of nOPV1 and nOPV3 and compare to that of the homotypic mOPVs in participants with an OPV-containing prior vaccination history.
3. To assess the extent of shedding (as determined by a SIE and the AUC) of nOPV1 and nOPV3 and compare to that of the homotypic mOPVs in participants with an OPV-containing prior vaccination history.
4. To assess the potential for neurovirulence of nOPV shed virus as measured by a transgenic mouse neurovirulence assay and compare to that of mOPV1 and mOPV3.
5. To assess genetic stability of nOPV shed vaccine virus as determined by NGS.
6. To assess the humoral immune responses elicited by nOPV1 and nOPV3 against non-vaccine poliovirus types.

3.2. Study Endpoints

3.2.1. Primary Endpoints

3.2.1.1. Safety

1. Frequency of serious adverse events (SAEs) from Day 1, study vaccination, through the end of the study.
2. Frequency of solicited adverse events (AEs) for 7 days (day of study vaccination and 6 following days) after each dose of study vaccine.
3. Frequency of unsolicited AEs for 28 days (day of study vaccination and 27 following days) after each dose of study vaccine [including clinically significant aberrant safety monitoring laboratory values on Day 8 reported as AEs].

3.2.2. Secondary Endpoints

3.2.2.1. Immunogenicity

1. Median type-specific anti-polio serum neutralizing antibody titers at baseline and post-vaccination.
2. Type-specific anti-polio serum neutralizing antibody Geometric Mean Titer (GMT) at baseline and post-vaccination.
3. Post-vaccination GMT ratios of type-specific anti-polio serum neutralizing antibody adjusted for baseline immunity.
4. Post-vaccination frequency of any fold-rise (titer increased from baseline), a minimum 2-fold rise, and a minimum 4-fold rise (seroconversion), in type-specific anti-polio serum neutralizing antibody response.

3.2.2.2. Fecal Shedding of Study Vaccine Viruses

1. Time to cessation of fecal shedding (days) of the vaccine virus, following initial dose.
2. Proportion of participants shedding type-specific vaccine virus at each post-vaccination stool collection, as assessed by PCR in participants with an exclusive IPV prior vaccination history.
3. Amount of vaccine virus in each stool sample (log10 CCID50 per gram) positive for virus (PCR) in participants with an exclusive IPV prior vaccination history.
4. Shedding Index of vaccine virus shedding in stool, defined as the mean of log10 CCID50 per gram of stool at 7, 14, 21 and 28 days following each dose in participants with an exclusive IPV prior vaccination history.
5. AUC of vaccine virus shed in stool in participants with an exclusive IPV prior vaccination history.

3.2.2.3. Exploratory Endpoints

1. Time to cessation of fecal shedding (days) of the vaccine virus, following second dose.

2. Proportion of participants shedding type-specific vaccine virus at each post-vaccination stool collection, as assessed by PCR in participants with an OPV-containing prior vaccination history
3. Amount of vaccine virus in each stool sample (log10 CCID50 per gram) positive for virus (PCR) in participants with an OPV-containing prior vaccination history
4. Shedding Index of vaccine virus shedding in stool, defined as the mean of log10 CCID50 per gram of stool at 7, 14, 21 and 28 days following each dose in participants with an OPV-containing prior vaccination history
5. AUC of vaccine virus shed in stool in participants with an OPV-containing prior vaccination history.
6. Neurovirulence of shed vaccine virus from select stool samples as measured by a transgenic mouse neurovirulence test.
7. Deep sequencing of shed vaccine virus from select stool samples, using NGS.
8. Serum neutralizing antibody titers against non-vaccine poliovirus types at baseline and post-vaccination.

3.3. Derived Variables for Analyses

A baseline value will be defined as the last value obtained prior to the first administration of study vaccine.

Age will be calculated from the date of enrollment and will be presented in whole years. For example, a participant born on 27JULY2000 and enrolled on 26JULY2021 will still be 20 years old.

Seroprotection is defined as a NAb titer ≥ 8. Seroconversion is defined by a ≥ 4-fold rise in NAb titer.

Concomitant medications and AEs will be classified into reporting periods required for analysis depending on the date of onset/start. In the event that the onset/start of an event is unknown, it will generally be assumed to be within reporting windows; for example, if only the onset/start day is missing then the event will be counted in the reporting period unless the known month/year makes that impossible. If there is ambiguity regarding which reporting period to assign an event to, the earlier of rational possibilities will be selected.

4. INVESTIGATIONAL PLAN

4.1. Overall Study Design and Plan

This is a first-in-human, multicenter trial to assess two novel oral poliomyelitis vaccines. It is an 8-arm, randomized, observer-blind, controlled trial, with Sabin monovalent vaccines serving as the control for each type (Table 1). A total of 150 to 230 healthy, adult participants will be recruited. 30 to 40 of 60 to 80 participants with an exclusive IPV prior vaccination history (cohort 1) will be randomized in a 1:1 ratio to study groups 1 and 2 and allocated to receive nOPV1 or mOPV1, and once these study arms are completely accrued, the other 30 to 40 exclusively IPV-vaccinated participants (cohort 3) will be randomized in a 1:1 ratio to study groups 5 and 6 and allocated to receive nOPV3 or mOPV3.

In parallel, 45 to 75 of 90 to 150 participants with an OPV-containing prior vaccination history (cohort 2) will be randomized in a 2:1 ratio to study groups 3 and 4 and allocated to receive two doses of nOPV1 or mOPV1, respectively, and once these study arms are completely accrued, the other 45 to 75 participants with an OPV- containing prior vaccination history (cohort 4) will be randomized in a 2:1 ratio to study groups 7 and 8 and allocated to receive two doses of nOPV3 or mOPV3, respectively.

Participants assigned to two doses of vaccine will receive the second dose 28 days following the first dose. Initial vaccination for Cohorts 1 and 2 participants will be limited to no more than 5 participants per day and a total of 10 participants during the first week of vaccination. Participants will be followed until 24 weeks after their Day 1 study vaccination.

Table 1 Study Schema

Cohort	Group	Prior Vaccination	Number of Participants (Min–Max)	Dosage CCID50	Day 1	Day 29
1	1	IPV	15-20	$10^{6.5}$	nOPV1	-
	2		15-20	$\geq 10^{6}$	mOPV1	-
Subtotal			30-40			
2	3	OPV	30-50	$10^{6.5}$	nOPV1	nOPV1
	4		15-25	$\geq 10^{6}$	mOPV1	mOPV1
Subtotal			45-75			
3	5	IPV	15-20	$10^{6.5}$	nOPV3	-
	6		15-20	$\geq 10^{5.8}$	mOPV3	-
Subtotal			30-40			
4	7	OPV	30-50	$10^{6.5}$	nOPV3	nOPV3
	8		15-25	$\geq 10^{5.8}$	mOPV3	mOPV3
Subtotal			45-75			
Total			150-230			

4.2. Selection of Study Population

4.2.1. Description of study population

The study population will include a total of 150 to 230 healthy adults, between the ages of 18 and 45 years, inclusive, enrolled at 4 sites: The University of Vermont, the University of North Carolina – Chapel Hill, Dartmouth-Hitchcock Medical Center, and Pharmaron CMC Inc. Enrolled participants who are withdrawn for any reason before vaccination will be replaced, participants withdrawn for any reason after vaccination will not be replaced. Enrollment into the study will be competitive in that clinical sites will enroll as many subjects as they can, until the overall study enrollment goal is achieved; the total number of trial participants enrolled study-wide does not change.

To be eligible for randomization and vaccination, participants must have met all the inclusion criteria and none of the exclusion criteria for the study.

4.2.2. Inclusion criteria for enrollment

1. Males or females, from 18 to 45 years of age (inclusive) at the time of enrollment
2. Healthy, as defined by the absence of any clinically significant medical conditions, either acute or chronic, as determined by medical history, physical examination, screening laboratory test results, and clinical assessment of the investigator
3. Willing and able to provide written informed consent prior to performance of any study-specific procedure
4. If female and of childbearing potential*, be not breastfeeding and not pregnant (based on a negative serum pregnancy test at screening and a negative urine pregnancy test during the 24 hours prior to any study vaccination), agreeing to have repeated pregnancy tests prior to any study vaccination, and having practiced adequate contraception** for 30 days prior to first study vaccination and willing to continue using adequate contraception consistently for at least 90 days after the last study vaccination and until cessation of vaccine virus shedding is confirmed

   * Females can be considered not of childbearing potential if they are with current bilateral tubal ligation, occlusion or removal, or post-total hysterectomy, or post-bilateral ovariectomy

   ** Adequate contraception is defined as a contraceptive method with failure rate of less than 1% per year when used consistently and correctly and when applicable, in accordance with the product label, for example:

   - Abstinence from penile-vaginal intercourse
   - Combined estrogen and progesterone oral contraceptives
   - Hormonal (e.g., progestogen) injections
   - Hormonal (e.g., etonogestrel or levonorgestrel) implants
   - Contraceptive vaginal ring
   - Percutaneous contraceptive patches

- Intrauterine device
- Intrauterine hormonal system
- Male condom combined with a vaginal spermicide (foam, gel, film, cream, or suppository), and/or progesterone alone oral contraceptive
- Monogamous relationship with vasectomized (≥ 180 days prior to enrollment) partner

5. Resides in study area and is able and willing to adhere to all study restrictions and to all study visits and procedures (as evidenced by a signed informed consent form [ICF] and assessment by the investigator)
6. Agrees not to and has no plans to travel outside the United States (US) until confirmation of cessation of vaccine virus shedding in stool at or after the study Day 57 stool collection
7. Able and willing to be contacted by telephone or text, and willing for study staff to leave telephone voice or electronic messages as needed
8. Neutralizing antibody titer ≥ 1:8 for poliovirus type 1 (for participants in cohorts 1 and 2) and ≥1:8 for poliovirus type 3 (for participants in cohorts 3 and 4)
9. For Cohorts 1 and 3 only: previously received at least 3 doses of IPV and with no history of receipt of OPV. For Cohorts 2 and 4 only: previously received a primary polio immunization series containing OPV

4.2.3. Exclusion criteria for enrollment

1. Have any condition (medical, psychiatric or behavioral) that, in the opinion of the investigator, would increase the participant's health risks in study participation or would increase the risk of not achieving the study's objectives (e.g., would compromise adherence to protocol requirements or interfere with planned safety and immunogenicity assessments)
2. Receipt of polio vaccine within 12 months before the start of the study
3. Having Crohn's disease or ulcerative colitis or having had major surgery of the gastrointestinal tract involving significant loss or resection of the bowel
4. A known allergy, hypersensitivity, or intolerance to any components of the study vaccines, including all macrolide and aminoglycoside antibiotics (e.g., erythromycin and kanamycin)
5. Any confirmed or suspected immunosuppressive or immunodeficiency condition (human immunodeficiency virus [HIV] infection, or total serum immunoglobulin A (IgA) or immunoglobulin G (IgG) level below the testing laboratory's lower limit of normal [LLN])
6. Administration of any long-acting immune-modifying drugs (e.g., infliximab or rituximab) or the chronic administration (i.e., longer than 14 days) of immunosuppressant drugs (e.g., oral or systemic steroids) or other immune-modifying drugs within 6 months prior to the first vaccine dose or planned use during the study (inhaled and topical steroids are allowed whereas intra- articular and epidural injection/administration of steroids are not allowed)
7. Will have household direct or close professional contact during the study with individuals expected to be immunosuppressed (due to underlying condition or treatments) or

individuals who have not yet completed their primary infant polio immunization series (i.e., three doses)

8. Will have household direct or close professional contact during the study with pregnant women
9. Will have household direct or close professional (e.g. neonatal nurses) contact during the study with children less than 2 years of age or with individuals who are encopretic (i.e., infants/toddlers who are not yet toilet trained or other individuals, including adults, with fecal incontinence)
10. Will have professional handling of food, catering, or food production activities during the study
11. Reside in homes with septic tanks
12. Acute illness or fever (body temperature measured orally ≥ 38°C or 100.4°F) at the time of study vaccine administration (once acute illness/fever is resolved, if appropriate, as per investigator assessment, participant may complete screening)
13. Indications of drug abuse or excessive use of alcohol as deemed by the investigator to confound safety assessments or render the participant unable or unlikely to adhere to protocol requirements or provide accurate safety reports
14. Participation in another investigational product (drug or vaccine) clinical trial within 30 days prior to entry in this study or receipt of any such investigational product other than the study vaccine within 30 days prior to the first administration of study vaccine, or planned use during the study period
15. Administration of any vaccine or any intramuscular injection (except seasonal inactivated influenza and COVID-19 vaccines which are prohibited for only 14 days prior to or following each study vaccination) other than the study vaccine within 30 days prior to the first dose of study vaccine or planned administration within 30 days prior to or after any study vaccination
16. Receipt of transfusion of any blood product or application of immunoglobulins within the 12 weeks prior to the first administration of study vaccine or planned use during the study period
17. Hepatitis B or C virus infection
18. Any hematological# or chemistry** parameter that is out of range of normal†† and is considered clinically significant by the investigator

    # Complete blood count (CBC), includes hemoglobin, hematocrit, white blood cell (WBC) count, neutrophil count, lymphocyte count, eosinophil count, and platelet count

    ** Creatinine, alanine transaminase (ALT), total bilirubin

    †† Per the site clinical laboratory's reference ranges. All tests with out of range results that are regarded as clinically significant by the clinician must be repeated and determined to be not clinically significant before any participant can be enrolled.

19. The following hematological or chemistry laboratory results will be considered exclusionary, irrespective of assessment of clinical significance:

    Hemoglobin (Male) < 12.5 g/dL

    Hemoglobin (Female) < 11.0 g/dL

    Neutrophil count < 1,000 cells/mm3

    Eosinophil count > 650 cells/mm3

    Platelet count < 125,000 cells/mm3

    Creatinine > 1.4 mg/dL

    ALT > 1.1 x Upper limit of normal (ULN) ††

    ††Per the site clinical laboratory's reference ranges.

4.3. Treatments

4.3.1. Treatments Administered

4.3.1.1. nOPV

nOPV1: Novel oral poliomyelitis vaccine type 1, containing $10^{6.5}$ $CCID_{50}$/dose, manufactured by Bio Farma, Indonesia.

nOPV3: Novel oral poliomyelitis vaccine type 3, containing $10^{6.5}$ $CCID_{50}$/dose, manufactured by Bio Farma, Indonesia.

4.3.1.2. mOPV

mOPV1: Sabin monovalent oral poliomyelitis vaccine type 1, containing not less than $10^{6.0}$ $CCID_{50}$/dose, manufactured by Bio Farma, Indonesia.

mOPV3: Sabin monovalent oral poliomyelitis vaccine type 3, containing not less than $10^{5.8}$ $CCID_{50}$/dose, manufactured by Bio Farma, Indonesia.

4.3.2. Method of Assigning Participants to Treatment Groups (Randomization)

Stratified and competitive enrollment using a permuted block design will be used to ensure balance within each site, without a prespecified number to be enrolled at each site.

Any enrolled participant who is randomized but withdraws for any reason prior to study vaccine administration will be replaced. Participants who are withdrawn for any reason after study vaccine administration will not be replaced.

Participants with exclusively IPV prior vaccination will be randomized 1:1 between the two groups within each cohort (1 and 3). Participants with exclusively OPV prior vaccination will be randomized to the 2 groups within each cohort (2 and 4, respectively) in a 2:1 (nOPV:mOPV) ratio.

Each site will receive a complete randomization table for all 150 to 230 participants, structured as described above but not in the same random order, and there will be no restriction on the number enrolled at each site.

Randomization data are kept strictly confidential, and should be accessible only to authorized persons, until the time of unblinding.

4.3.3. Blinding

This is an observer-blinded study; study participants, study personnel who perform study assessments after study vaccine administration, data entry personnel at the sites, and laboratory personnel will be masked to treatment assignment. The Emmes unblinded statistician and other designated Emmes staff will have access to the unblinded treatment assignments.

4.3.3.1. Unblinding Procedure

Details and documentation surrounding such unblinding is described in the Unblinding Manual. Documentation of the unblinding event (including the rationale and requestor) will be captured by the IWRS. If a participant's treatment assignment is unblinded, the participant will remain in the study and continue with protocol-defined study visits, but not receive further study vaccines.

4.3.4. Treatment Compliance

Information on treatment exposure will be collected on the exposure record (EXR) case report form, including whether the vaccine was administered (Y/N), date and time of administration, treatment code number and whether the subject was observed for at least 30 minutes post-administration.

Participants in groups 1, 2, 5 and 6 should receive 1 study dose on day 1, whereas participants in groups 3, 4, 7 and 8 should receive 2 study doses, on day 1 and day 28. The vaccine, 2 drops (0.1 mL), will be administered by unblinded study staff directly from the masked vaccine vial's dropper into the participant's mouth. Each participant will be observed for at least 30 minutes after administration in case of any immediate adverse reactions. If a participant experiences an immediate adverse reaction, he/she will be treated, and the event will be recorded in the eCRF.

4.3.5. Protocol Deviations

A protocol deviation is any noncompliance with the clinical trial protocol, GCP, or site SOP requirements. The noncompliance may be either on the part of the participant, the PI, or the study site staff.

The timeline for reporting protocol deviations to the IRB and PATH will be determined by the categorization of the deviation as major or minor. Major protocol deviations are a subset of protocol deviations that may significantly impact the completeness, accuracy, or reliability of the study data or that may significantly affect a participant's rights, safety, or well-being. For example, major protocol deviations may include failure to obtain informed consent, failure to report SAEs, enrolling participants in violation of key eligibility criteria designed to ensure a specific participant population or failing to collect data necessary to interpret primary endpoints, as this may compromise the scientific value of the trial.

Minor deviations are departures from the protocol that do not involve participant safety or integrity of the study data.

4.3.6. Loss to Follow-Up

To avoid participants being lost to follow-up, participants will be reminded by email or text message within a few days before a scheduled visit. In the event of a missed visit, participants will be contacted by phone, email, or text message the next business day following the missed visit. A participant who cannot be located or fails to respond after three attempted contacts and has missed two consecutive visits (other than those scheduled primarily to provide stool samples) will be considered lost to follow-up. Efforts to contact the participant will be documented in source documents. Any participant who fails to attend the final study visit will also be classified as lost to follow-up. There will be no replacement of participants who are lost to follow-up.

4.4. Safety and Immunogenicity Variables

The following section describes the collection of immunogenicity and safety variables. For a detailed schedule of activities, refer to Table 5. For a list of the primary and secondary immunogenicity and safety variables, refer to Section 3 and Section 8 of this document.

4.4.1. Safety Variables

An adverse event (AE) is any untoward medical occurrence in a participant after administration of the study vaccine that does not necessarily have a causal relationship with the study vaccine. An AE can therefore be any unfavorable and unintended sign (including any clinically significant abnormal laboratory finding), symptom, physical examination, or disease temporally associated with the use of the study vaccine, whether or not related to the study vaccine. This definition includes exacerbations of pre-existing conditions. Stable pre-existing conditions that do not change in nature or severity during the study are not considered AEs; however, these should be reported as part of the medical history.

4.4.1.1. Reporting Period

For the schedule of study visits and evaluations see Table 5 in Appendix 1.

Safety events will be reported from the time of signing the ICF through each participant's completion of the study 168 days after their Day 1 study vaccination. Specifically, solicited AEs will be collected for 7 days (day of study vaccination and 6 following days) after each dose of study vaccine. If a solicited AE started during the 7 days post-vaccination and continues beyond the 7 days, it will continue to be reported as a solicited AE. Unsolicited AEs will be collected for 28 days (day of study vaccination and 27 following days) after each dose of study vaccine. SAEs will be collected from Day 1 study vaccination through the end of the study (Day 169 visit).

Any untoward medical occurrence after signing the ICF but before receipt of study vaccine, although not to be reported as an AE, if it is assessed as related to participation in the study, must still be reported by email to PATH within 3 days of awareness.

Due to uncertainties around the COVID-19 pandemic and the potential for stay-at-home orders, if a subject is unable to come to the clinic for a visit, the scheduled and applicable safety assessments may be conducted by telephone.

4.4.1.2. Solicited Adverse Events

Solicited AEs are pre-specified AEs that are common or known to be associated with vaccination that are actively monitored as potential indicators of vaccine reactogenicity. Investigators will not

be required to assess causality of solicited AEs if the onset is during the solicitation periods. Solicited AEs with onset after the solicitation period will be captured as unsolicited AEs.

For this trial, participants will be monitored for at least 30 minutes following study vaccine administration in case of any immediate hypersensitivity reactions, and solicited AEs will be assessed through 7 days following each dose (day of vaccination and subsequent 6 days) and graded on a scale of 0 (normal), 1 (mild), 2 (moderate) and 3 (severe). Participants will be provided a memory aid to record the presence and severity or absence of solicited AEs. The memory aid may be accessed by smartphone or any device that connects to the internet. Solicited AEs with onset during the solicitation period that persist beyond the solicitation period will continue to be captured as solicited AEs.

The following specific solicited AEs will be monitored for this trial:

- Fever (oral temperature ≥ 38.0°C or 100.4°F)
- Chills
- Fatigue
- Headache
- Muscle aches/Myalgias
- Joint aches/Arthralgias
- Nausea
- Vomiting
- Abdominal pain
- Diarrhea.

The severity of all solicited AEs will be graded based on the grading scale in Table 2 below.

Table 2: Grading scale to grade the severity of solicited AEs

Solicited AE	Grade	Definition
Fever (oral body temperature)	0	< 100.4°F (none)
	1	≥ 100.4°F to < 101.5°F
	2	≥ 101.5°F to < 102.7°F
	3	≥ 102.7°F
Diarrhea	0	None
	1	2 to 3 loose stools per 24 hours
	2	4 to 5 stools per 24 hours
	3	6 or more watery stools per 24 hours
Chills or fatigue or headache or myalgias or arthralgias or	0	None
	1	Causes no or minimal interference with usual social & functional activities

Solicited AE	Grade	Definition
nausea or vomiting or abdominal pain	2	Causes greater than minimal interference with but does not prevent usual social & functional activities
	3	Causes inability to perform usual social & functional activities

4.4.1.3. Unsolicited Adverse Events

Unsolicited AEs are any AEs reported spontaneously by the participant, observed by the study personnel during study visits or those identified during review of medical records or source documents.

In the absence of a diagnosis, abnormal physical examination findings or abnormal clinical safety laboratory test results that are assessed by the investigator to be clinically significant will be reported as an AE.

The severity of all AEs other than solicited AEs and abnormal clinical safety laboratory test results reported as AEs will be assessed by the investigator and participant (as applicable) based on the Division of AIDS (DAIDS) Table for Grading the Severity of Adult and Pediatric Adverse Events, corrected version 2.1, July 2017, of the US National Institute of Health, available from:

https://rsc.niaid.nih.gov/sites/default/files/daidsgradingcorrectedv21.pdf

The severity grading criteria for AEs are graded from mild (grade 1) to life threatening (grade 4). All AEs leading to death are Grade 5 events. AEs are graded with the worst severity grade during the illness/symptoms. Life threatening events and events leading to death must be reported as SAEs.

4.4.1.4. Causality of Unsolicited Adverse Events

The study investigators will determine the causal relationship between the study vaccine and the AE. The causality assessment will be made based on the available information at the time of reporting and can be subsequently changed according to follow-up information. Assessment of causality is based on clinical judgment and should take into consideration the following factors:

- Is there a temporal relationship between the event and administration of the study vaccine?
- Is there a plausible biological mechanism for the study vaccine to cause the AE?
- Is there a possible alternative etiology for the AE such as concurrent illness, concomitant medications?
- Are there previous reports of similar AEs associated with the study vaccine or other vaccines in the same class?

For this study, the investigator must classify the causality of the AE according to the categories defined below:

Related: There is a reasonable possibility that the study vaccine caused the event. “Reasonable possibility” means that there is evidence to suggest a causal relationship between the study vaccine and the AE.

Not Related: There is not a reasonable possibility that the administration of the study vaccine caused the event.

4.4.1.5. Follow-Up of Unsolicited Adverse Events

All reported AEs should be followed until resolution or stabilization, or until the participant's participation in the study ends. The investigator must ensure that any AEs that are ongoing at study completion have been appropriately referred to the local health care system for continuation of care. Participants who have an ongoing study vaccine related SAE at study completion or at discontinuation from the study will be followed by the investigator until the event is resolved or determined to be irreversible, chronic, or stable by the investigator.

The outcome of adverse events will be assessed at the time of last observation as per the following categories:

- Recovered/resolved without sequelae
- Recovered/resolved with sequelae
- Recovering/resolving
- Not recovered/not resolved
- Fatal
- Unknown. The outcome of the AE is not known

Due to uncertainties around the COVID-19 pandemic, if a subject has a reportable adverse event that meets the clinical criteria of the current CDC case definition of COVID-19, the investigator will ensure that the subject will undergo standard of care diagnostic testing and if needed, a quarantine period for SARS-CoV-2.

4.4.1.6. Adverse Reaction / Suspected Adverse Reaction

Suspected adverse reaction is any adverse event for which there is a reasonable possibility that the vaccine caused the adverse event. For the purposes of IND safety reporting, "reasonable possibility" means there is evidence to suggest a causal relationship between the vaccine and the adverse event. Suspected adverse reaction implies less certainty about causality than adverse reaction, which means any adverse event caused by a vaccine.

- Adverse reaction is any adverse event caused by the vaccine. Adverse reactions are a subset of suspected adverse reactions for which there is reason to conclude that the vaccine caused the event.
- Unexpected adverse event or unexpected suspected adverse reaction refers to an event or reaction that is not listed in the IB or is not listed at the specificity or severity that has been observed.
- Unexpected suspected adverse reaction is considered "unexpected" if it is not listed in the investigator brochure or is not listed at the specificity or severity that has been observed.

4.4.1.7. Serious Adverse Event (SAE)

Serious adverse event is any adverse event that results in any of the following outcomes:

- Death

- Is life-threatening (life-threatening means that the study participant was, in the opinion of the investigator or PATH, at risk of death at the time of the event; it does not refer to an event which hypothetically might have caused death if it were more severe)
- Requires inpatient hospitalization or prolongation of existing hospitalization
- Results in persistent or significant incapacity or substantial disruption of the ability to conduct normal life functions
- Congenital anomaly or birth defect
- Important medical event that may not result in one of the above outcomes, but based upon appropriate medical judgment, may jeopardize the health of the study participant, and require medical or surgical intervention to prevent one of the outcomes listed above.

Suspected unexpected serious adverse reaction (SUSAR) is any suspected adverse reaction that is both unexpected and serious.

4.4.1.8. Abnormal Clinical Safety Laboratory Test Results Reported as AEs

Protocol mandated clinical screening and safety laboratory tests will be conducted in real time by site local laboratories that are properly accredited and subscribed to a proficiency testing program. These tests include:

- CBC: hemoglobin, hematocrit, WBC count, neutrophil count, lymphocyte count, eosinophil count and platelet count, performed at screening, Day 1 and Day 8 visits
- Serum Chemistry: ALT, total bilirubin and creatinine, performed at screening and at the Day 1 and Day 8 visits
- Pregnancy test: Serum β-HCG at screening, then urine β-HCG prior to each study vaccination (conducted on site)
- Human immunodeficiency viruses 1 and 2 (HIV 1/2) infection testing performed at screening
- Hepatitis B virus surface antigen performed at screening (HBsAg)
- Hepatitis C virus antibody (HCV Ab), if positive, HCV PCR, performed at screening
- Total IgG and IgA performed at screening

If clinically significant abnormalities are identified during screening, participants will be referred to their primary health provider or appropriate medical center. If identified during the study, participants may be asked to return to the study site for further evaluation, including clinical evaluation and repeat laboratory testing (e.g., monitoring for resolution or stabilization) as warranted. Any test may be repeated for test results determined to be spurious by the investigator (e.g., following improper specimen collection) or if a valid test cannot be performed on the original blood collected (e.g., collection tube broken during transportation).

The severity of abnormal clinical safety laboratory test results reported as AEs will be graded based on the grading scale in Table 3 below. The table is adapted from the FDA Guidance for Industry: Toxicity Grading Scale for Healthy Adult and Adolescent Volunteers Enrolled in Preventive Vaccine Clinical Trials (September 2007). In the absence of a diagnosis, any clinical

safety laboratory test result that meets the definition of an SAE as determined by the investigator (e.g., life-threatening) must be reported as an SAE.

Table 3: Grading scale to grade the severity of abnormal clinical safety laboratory test results reported as AEs

Parameter	Grade 1 (Mild)	Grade 2 (Moderate)	Grade 3 (Severe)
Hemoglobin [Female] (g/dL)	11.0 – 12.0	9.5 – 10.9	< 9.5
Hemoglobin [Female] change from baseline value (g/dL)	Any decrease – 1.5	1.6 – 2.0	> 2.0
Hemoglobin [Male] (g/dL)	12.5 – 13.5	10.5 – 12.4	< 10.5
Hemoglobin [Male] change from baseline value (g/dL)	Any decrease – 1.5	1.6 – 2.0	> 2.0
WBC Increase (cell/mm^3)	10,800 – 15,000	15,001 – 20,000	> 20,000
WBC Decrease (cell/mm^3)	2,500 – 3,500	1,500 – 2,499	< 1,500
Lymphocytes Decrease (cell/mm^3)	750 – 1,000	500 – 749	< 500
Neutrophils Decrease (cell/mm^3)	1,500 – 2,000	1,000 – 1,499	< 1,000
Eosinophils (cell/mm^3)	650 – 1,500	1,501 – 5,000	> 5,000
Platelets Decreased (cell/mm^3)	125,000 – 140,000	100,000 – 124,000	< 100,000
Creatinine (mg/dL)	1.5 – 1.7	1.8 – 2.0	> 2.0
ALT increase by factor	1.1 – 2.5 x ULN*	> 2.5 – 5.0 x ULN*	> 5.0 x ULN*
Total bilirubin increase by factor	1.1 – 1.5 x ULN*	> 1.5 – 2.0 x ULN*	> 2.0 x ULN*

**ULN = upper limit of normal*

4.4.2. Immunogenicity Variables

Venous blood samples for type-specific poliovirus neutralizing antibodies will be collected at the screening visit (baseline), on Day 29 (prior to the second dose in cohorts 2 and 4) in all cohorts, and on Day 57 (28 days post-dose 2) in cohorts 2 and 4. Serological assays will be performed at the Polio and Picornavirus Laboratory Branch at the United States Centers for Disease Control and Prevention (CDC). For screening purposes (eligibility determination) only, a sample will also be shipped to a commercial qualified laboratory.

4.4.3. Viral Shedding Variables

Only participants receiving a dose will be evaluated for viral shedding in the corresponding post-dose analyses. In the single dose cohorts, samples will be collected on study days 3, 5, 8, 10, 15,

22, 29, 36, 43, 50 and 57. In the two dose cohorts, samples will be collected on study days 8, 15, 22, 29, 36, 43, 50 and 57 (i.e., days 7, 14, 21 and 28 post-each dose).

If cessation of vaccine virus shedding is not confirmed by day 57, collections will continue along with the associated protocol restrictions until cessation of shedding has been confirmed. If poliovirus shedding is detected by PCR on one of the last two scheduled stool samples, stool sample collection duration for that participant will be extended. As soon as the shedding results are known (anticipated approximately two weeks after the last stool sample provided for evaluation) the participant will be asked to collect additional stool samples after the last per protocol sample obtained over a period no shorter than 24 hours, and to repeat this until shedding is PCR-negative for poliovirus on two consecutive stool samples collected. They will be provided additional stool collection kit for each sampling day.

If the last stool sample is missing the participant will be asked to provide a new sample as soon as possible in order to determine the need for further stool sample collection until poliovirus shedding is PCR negative on two consecutive stool samples.

For each sample, viral shedding positivity (PCR) and infectivity (log_{10} $CCID_{50}$ per gram) will be assessed and evaluated for the appropriate virus type (1 or 3) depending on study vaccine received.

Stool samples to assess presence of poliovirus and genetic stability of shed virus will be processed at the clinical trial site in a Biosafety Level 2 (BSL-2) laboratory and stored at ≤-20°C before being transported to the Polio and Picornavirus Laboratory Branch at the CDC or Viroclinics Biosciences B.V., Rotterdam, The Netherlands. The assessment of shed poliovirus will be performed using:

- Multiplex real-time PCR for identification of type-specific poliovirus in stool, to be performed at the Polio and Picornavirus Laboratory Branch at the CDC
- $CCID_{50}$ for quantification of type 1 or 3 poliovirus in stool, to be performed at the Polio and Picornavirus Laboratory Branch at the CDC
- Quantitative PCR for quantification of type 1 or 3 poliovirus in stool may be performed at Viroclinics Biosciences B.V.
- Neurovirulence of fecally shed vaccine virus as assessed by a transgenic mouse neurovirulence test (TgmNVT), to be performed at Viroclinics Biosciences B.V.
- Next Generation Sequencing of fecally shed vaccine virus, to be performed by Viroclinics Biosciences B.V.

5. SAMPLE SIZE CONSIDERATIONS

The sample sizes chosen for this study were chosen primarily to enable evaluation of safety in a sufficient number of adults prior to a subsequent study phase in younger individuals, to provide an opportunity to demonstrate an immune response with study vaccination and to enable collection of stool samples to permit a preliminary evaluation of genetic stability of shed virus. Definitive evaluations of immunogenicity, viral shedding and genetic stability are planned for future study phases.

For the safety endpoints, Table 4 below describes the probability of detection of rare events and the precision afforded by the sample sizes used in this study. These levels are consistent with standard phase 1 vaccine studies aimed at safety evaluation and provide adequate ability to detect unexpected adverse events prior to age de-escalation in a subsequent study.

Table 4: Probability of detection of rare events

Sample size	Minimum AE rate producing 95% probability of observation with given sample size (%)	95% Confidence interval for event rate if 0 events are observed	95% Confidence interval for event rate if 1 event is observed
15	18.2	(0.0, 21.8)	(0.1, 31.9)
20	13.9	(0.0, 16.8)	(0.1, 24.9)
25	11.3	(0.0, 13.7)	(0.1, 20.4)
50	5.8	(0.0, 7.1)	(0.1, 10.6)
70	4.2	(0.0, 5.1)	(0.04, 7.7)

Minimum adverse event rates required to have ≥95% probability of detecting at least one such event with given sample sizes, along with two-sided 95% exact confidence intervals if 0 or 1 events are observed.

Assessment of immunogenicity is a secondary objective of this study. Detailed information on expected immunological responses is presented in Section 11.3 of the protocol.

6. GENERAL STATISTICAL CONSIDERATIONS

6.1. General Principles

Unless otherwise specified, descriptive statistics will include the mean, SD, median, minimum, maximum for continuous variables, and the number and proportion in each group for categorical variables. Unless otherwise specified here or in the protocol, statistical tests, and confidence intervals (CIs) will be computed using a two-sided 5% significance level. Exact (Clopper-Pearson) CIs will be used for univariate summaries of dichotomous variables, and Miettinen-Nurminen score-based confidence intervals will be used for rate differences. All proportions will use as denominator the number of participants contributing data at the specified time point within the specified group and study population.

Summaries will be presented by group and by time point, where relevant. Safety analyses will further be presented according to product received.

6.2. Timing of Analyses

Analysis of immunological endpoints will occur separately for each type, in advance of the completion of long-term safety follow-up of participants. Following database lock for long-term safety follow-up and completion of stool viral shedding assays, a complete final analysis will be produced and incorporated into a clinical study report (CSR).

For each serotype independently, primary analyses will be conducted once the following data are available from each cohort:

From both previously IPV-vaccinated and previously OPV-vaccinated participants:

1. Safety data through 28 days post-last dose (solicited and unsolicited AEs via the IDMC tables, clinical laboratory results including Tables 119-127)

From both previously IPV-vaccinated and previously OPV-vaccinated participants:

2. At least post-dose 1 immunogenicity data (Tables 134 and 153)

From both previously IPV-vaccinated and previously OPV-vaccinated participants:

1. Viral shedding PCR detection with the (nominal) Day 43, Day 50, and Day 57 samples (The PCR sections of Tables 159 and 160)

A final analysis will be performed upon completion of both safety follow-up and collection and analysis of stool samples for viral shedding. Viral shedding results for PCR detection will proceed in advance of the $CCID_{50}$ (infectivity) results. Neurovirulence results, when available, will be analyzed and included in the study report, and these data are anticipated to be available well after completion of the other analyses.

At the primary analyses, PATH will receive group-level unblinded immunogenicity results, as the data represent the final analysis of these endpoints. No individual-level listings will be provided. For safety endpoints, both a blinded and unblinded analysis will be generated, but the PATH study team will only receive the blinded safety report to avoid potential unblinding based on observations of rare events. If blinded safety results are uniformly benign, an independent unblinded review may be considered unnecessary; otherwise, the Independent Data Monitoring Committee (IDMC) may be requested to review the unblinded primary analysis and provide an opinion. PATH may form a steering committee, composed of individuals not involved in the study, to review the

unblinded data from the primary analyses, if necessary to enable decisions regarding subsequent development steps. A Data Review Meeting (DRM) will be conducted prior to the primary analysis, for classification of per-protocol population membership (see Section 6.3.5 below). If necessary, another DRM will be conducted if, for example, post-dose-2 results are not included in the primary analyses of immunogenicity.

6.3. Analysis Populations

A summary of all analysis populations is presented in Table 6.

6.3.1. Enrolled Population

The Enrolled Population will be defined as all participants who provide informed consent, regardless of the participant's randomization and treatment status in the study.

6.3.2. Reactogenicity Population

The Reactogenicity Population will be defined as all participants in the Enrolled Population who received a study vaccine. This population will be used for all analyses of solicited adverse events and clinical labs. For summaries specifically limited to the post-dose 2 time period, the population will require receipt of the 2nd dose.

6.3.3. Safety Population

The Safety Population will be defined as all participants in the Reactogenicity Population for whom no potential transmission events were identified by next generation sequencing of shed virus (Cohorts 1 and 3 only). This population will be used for all safety analyses that include unsolicited adverse events (including SAEs). For summaries specifically limited to the post-dose 2 time period, the population will require receipt of the 2nd dose.

6.3.4. Full Analysis Population

The Full Analysis Population (FAP) will be defined as all participants in the Reactogenicity Population who provided a baseline and at least one post-study vaccination evaluable serum sample. For summaries involving post-dose 2 data relative to pre-dose 2 (post-dose 1) data (e.g., fold-rise following 2nd dose), the FAP definition will require an evaluable pre-dose 2 sample on the day of 2nd vaccination and at least one post-dose 2 evaluable serum sample.

6.3.5. Per Protocol Population

The Per-Protocol population (PPP) will be defined as all participants in the FAP who correctly received study vaccinations per randomization with no major protocol deviations that are determined to potentially interfere with the immunogenicity result of the participant. The PPP will be defined at the time-point level, separately within each cohort and treatment group; that is, a participant may be evaluable in the PPP with their baseline and Day 29 samples, but not for the Day 57 sample due to a major protocol deviation. For summaries of the PPP at the participant level, the PP membership for the Day 29 visit will be used.

Prior to database lock, the database will be searched for potentially disqualifying deviations, which will be included in a by-participant listing of all protocol deviations, medications and any other relevant information (basically, a participant-profile report) that will be reviewed in a Data Review

Meeting (DRM) attended by representatives from PATH, Emmes and the study sites, to determine PPP eligibility. Efforts will be taken to blind participant group membership during this review to the extent possible in this observer-blind study. The following constitute potential criteria for elimination from the per-protocol population. The list is not exhaustive, as unexpected deviations may arise requiring unique consideration.

- Missed vaccinations
- Significant non-compliance with visit windows
- Any eligibility criteria not met
- Receipt of a non-study vaccine
- Receipt of immunosuppressants or immune modulators
- Receipt of study vaccine not stored as per manufacturers approved storage condition
- Incomplete vaccine dose administration or vomiting within 5 minutes of vaccination
- Serological results unavailability
- Wrong randomization
- Dosed with wrong treatment

A DRM report(s) will provide the criteria used for determination and a list of participants excluded along with the exclusion time point(s) and accompanying rationale.

The PPP is the primary population for analysis of humoral immune responses (neutralizing antibody titers) elicited by nOPV1 and nOPV3 compared to mOPV1 and mOPV3, respectively.

The following sub-populations of the PPP are defined for supplementary immunogenicity evaluations:

- Quantifiable PPP: All participants with non-missing baseline and post-baseline NAb titers >LLOQ and <ULOQ. This sub-population will be used for additional descriptive analyses of GMFR.
- Sensitivity Analysis Per Protocol Population (SAPPP): Type 1 results from serum samples in cohorts 1 and 2 were provided in August 2022. Type 3 results from serum samples in cohorts 3 and 4 were provided in January 2023. However, additional data from all 4 cohorts (22 samples total) were provided in March 2023. These additional data are excluded from the sensitivity analysis PPP.

6.3.6. Viral Shedding Populations

Participants for whom potential transmission events were identified by next generation sequencing of shed virus will be excluded from all viral shedding analyses. For descriptive summaries of shedding data at particular time points, all evaluable samples from participants in the Safety Population (second dose required for post-dose 2 summaries) will be used. For SIE computation, only those participants with stool samples collected on nominal days 7, 14, 21 and 28 following vaccination will contribute. A similar population will be defined for the analysis of post-dose 2 samples. For AUC computation in participants with an exclusive IPV prior vaccination history, participants will be assumed to be not shedding at time of vaccination, and will be excluded from

computation if they are a) missing samples from Days 3, 5, or 8, b) missing the last sample (day 57), or c) missing samples from 2 consecutive nominal visits. A corresponding analysis will be performed considering the Day 29 sample as the last sample (AUC_{0-28}). AUC will be calculated using all data within the visit range interval, based on actual collection dates.

In participants with an OPV-containing prior vaccination history, a post-dose 2 viral shedding sub-population will include all participants negative for shedding of vaccine virus in the last evaluable sample available prior to the second dose. Descriptive summaries and SIE/AUC computations, which are based on samples from nominal days 7, 14, 21 and 28 post-dose, will be repeated for each dose. For AUC computation, participants will be included only if a) they have data from day 7 and day 28, and b) they have data from day 14 and/or day 21. See Table 7 for more details on the various viral shedding populations.

AUC and SIE populations, based on prior IPV/OPV vaccination and dose number, are defined as follows:

- **SIE_1 (0 – 28):** Complete data from post-dose 1 days 7, 14, 21 and 28.
- **SIE_2 (28 – 56):** Complete data from post-dose 2 days 7, 14, 21 and 28.
- **SIE_3 (28 – 56):** Last sample prior to dose 2 negative for shedding and complete data from post-dose 2 days 7, 14, 21 and 28.
- **AUC_1 (0 – 28):** Data from all post-dose 1 samples collected from day 7 to day 28 for prior OPV-vaccinated participants, and (must have data from day 7 and day 28, and either day 14 or day 21).
- **AUC_2 (0 – 28):** Data from all post-dose 1 samples collected from day 2 to day 28 for prior IPV-vaccinated participants (must have data from day 2 and day 28, and no 2 missing consecutive samples from days 4, 7, 9, 14, 21).
- **AUC_3 (0 – 56):** Data from all post-dose 1 samples collected from day 2 to day 56 for prior IPV-vaccinated participants (must have data from day 2 and day 56, and no 2 missing consecutive samples from days 4, 7, 9, 14, 21, 28, 35, 42, 49).
- **AUC_4 (28 – 56):** Data from post-dose 2 samples in prior OPV-vaccinated participants collected from post-dose 2 day 7 to day 28 (must have data from day 7 and day 28, and either day 14 or day 21).
- **AUC_5 (28 – 56):** Same as AUC_4 but in participants whose last sample prior to dose 2 was negative for shedding.

Note that inclusion/exclusion for each population will be based on samples obtained within the visit windows for each of the nominal visits described above. Permissible stool sample windows are defined in Appendix 1 of the protocol. For the SIE if multiple samples are available within window, the mean will be used. For example, day 20, or 22 could be used to replace a missing day 21 or the average of day 20 and 22 if both are available. For AUC analyses for Cohorts 1 and 3 there is the potential for off day samples to be contained within multiple windows. AUC will be calculated using all data within the visit range based on the actual collection dates.

6.4. Covariates and Subgroups

As described in Section 4.3.2 randomization will be both competitive and stratified by site. Solicited AE results will be presented overall as well as by site. Baseline NAb titers will be compared between sites and NAb GMT ratio estimates and 95% CIs will be adjusted for site.

Analyses of immunogenicity data will be performed separately within groups defined exclusively by those previously receiving IPV prior vaccination, and those previously receiving OPV. Pairwise comparisons between nOPV-vaccinated groups and mOPV-vaccinated control groups within type (type 1 and 3) will be conducted separately, where the NAb GMT ratio (nOPV/mOPV) will be estimated via a linear model of the $\log_2$ NAb titer as a function of group, with a fixed parameter for site and a covariate for the baseline $\log_2$ NAb titer level. Additional subgroup analyses will be performed to estimate GMFR (see Section 6.3.5 for details).

Viral shedding subgroup analyses will be performed (see Section 6.3.6 for details).

6.5. Missing Data and Outliers

All attempts will be made to collect all data per protocol. As missing data are expected to be minimal, no imputation will be performed for missing values. Any data point that appears to be erroneous or inexplicable based on clinical judgement will be investigated as a possible outlier. If data points are identified as outliers, sensitivity analyses will be performed to examine the impact of including or excluding the outliers. Any substantive differences in these analyses will be reported.

6.6. Interim Analyses and Data Reviews

6.6.1. Interim Analysis

See Section 6.2 for a description of analysis timing.

6.6.2. Data Reviews

6.6.2.1. Routine Data Reviews by Protocol Safety Review Team (PSRT)

The Protocol Safety Review Team (PSRT), composed of the site PIs, the PATH Medical Officer and Emmes medical monitor, will routinely monitor safety throughout the duration of the trial. The PSRT will be chaired by the PATH Medical Officer and may seek additional independent expert medical opinion as dictated by needs, including referral to the IDMC, particularly for consideration of unblinded review. The Emmes statistician, with assistance of the data management staff, will prepare blinded safety reports for review by the PSRT. The PSRT safety review will be conducted by teleconference (or electronically when appropriate) occurring at least

once monthly until all participants have completed their Day 57 study visits and as needed thereafter for the remainder of the study.

A separate document will detail the mock table shells, listings and figures to be included in PSRT reports.

6.6.2.2. Independent Data Monitoring Committee (IDMC) Reviews

An IDMC composed of at least three independent members with expertise in vaccine clinical trials will be convened by PATH to periodically review the conduct and safety of the study. The responsibilities and procedures of the IDMC are defined in the IDMC Charter.

The IDMC will convene for an organizational meeting prior to study initiation and then for at least three scheduled meetings during the conduct of the study. For each of the two nOPV types, one meeting will be scheduled once 15 participants have completed their one-week post-initial dose study vaccination visits. The third meeting will be scheduled based upon observed enrollment rates and study progress. In addition to these routinely scheduled meetings, if the PSRT has serious safety concerns or study pause criteria are met, the IDMC will convene by teleconference to jointly review the data. The IDMC reviews will be summarized with recommendations to PATH as to whether there are safety concerns and whether the study should continue without change, be modified, or be terminated.

A separate document will detail the mock table shells, listings and figures to be included in IDMC reports.

6.7. Multicenter Studies

The primary analyses of safety data will be pooled across all clinical sites. Center effects are not anticipated because the sites are using standardized procedures for vaccination and assessment of solicited and unsolicited adverse events. However, select analyses will also be reproduced according to study site, focusing on items requiring subjective evaluation, such as severity and causality of adverse events. Immunogenicity evaluations rely on central laboratories for the assessment of immunogenicity and viral shedding endpoints and will be pooled across sites, except where otherwise defined in this document, such as linear models for GMT ratios including a factor for study site.

6.8. Multiple Comparisons/Multiplicity

No adjustments for multiple testing are planned.

7. STUDY PARTICIPANTS

All Tables, Figures and Listings not included in the above sections will be presented in Appendix 1, Appendix 2 and Appendix 3, respectively.

7.1. Disposition of Participants

A summary of screen failures is presented in Table 8. A summary of exposure to study vaccinations will be tabulated by cohort and treatment received, in the safety population (Table 9) and listed for all participants (Listing 9). A summary of participant disposition by cohort and treatment group will be presented in Table 10, including reasons for early termination and treatment discontinuation. The number of participants completing each visit will be summarized in Table 11. A CONSORT diagram of the study will also be prepared (Figure 1).

7.2. Protocol Deviations

A summary of participant-specific protocol deviations will be presented by the reason for the deviation, the deviation category, study cohort and group for all participants (Table 12). All participant-specific protocol deviations and non-participant-specific protocol deviations will be included as data listings (Listing 3 and Listing 4), respectively. Protocol deviations will not necessarily always lead to exclusion from the PPP. Determination of exclusion will be established before breaking the blind and based on the blinded review of protocol deviations and other criteria for inclusion.

7.3. Demographic and Other Baseline Characteristics

Descriptive statistics will be computed for demographic characteristics (sex, ethnicity, race, age, height and weight) in both the safety and PP populations (Table 13 and Table 14), respectively, Appendix 1). These tables will be repeated by site (Table 15 and Table 16).

A demographic listing will also be prepared (Listing 5).

7.3.1. Medical History

All pre-existing medical conditions (conditions with date of onset prior to administration of study vaccine) will be coded using the most recent version of the Medical Dictionary for Regulatory Activities (MedDRA) and presented in Table 17, and individual participant listings will be prepared for all pre-existing medical conditions (Listing 6). The number and percent of participants in the safety population receiving COVID vaccinations prior to randomization will be summarized in Table 18 by site and cohort, including descriptive statistics of the time since last COVID vaccination to study vaccination.

7.3.2. Concomitant Medications

Summaries of medications will be presented by WHO Drug Code Anatomic Group Level 1 and Level 2. Medications taken during the reporting period will be summarized in Table 19. Individual participant listings will be prepared for all concomitant medications (Listing 7).

7.4. Measurements of Treatment Compliance

The number of doses of study product administered to participants will be summarized as part of the vaccine administration table (Table 9). In addition, a listing will also be prepared (Listing 8).

8. SAFETY EVALUATION

All safety analyses will be conducted in the safety population, according to vaccine received. Summaries will be computed separately by group and within type across group (i.e. combined Groups 1 and 3 compared to combined Groups 2 and 4, and combined Groups 5 and 7 compared to combined Groups 6 and 8). A limited set of additional tables will be presented, by sex.

The extent of exposure will be summarized by tabulating the number of doses of a given vaccine received for each participant, as well as descriptive summaries of the time (days) between vaccinations (cohorts 2 and 4).

8.1. Adverse Events

8.1.1. Overall Summaries of Adverse Events

The number and proportion of participants experiencing each of the events listed below will be summarized separately for each cohort: Table 20 (cohort 1), Table 21 (cohort 2), Table 22 (cohort 3) and Table 23 (cohort 4), and by study treatment received: Table 24 (nOPV1, mOPV1) and Table 25 (nOPV3, mOPV3) . Each event will be summarized by dose number and overall, where applicable.

- Any SAE throughout the specified time periods
- Any non-serious solicited or unsolicited AE
- Any non-serious solicited or unsolicited AE leading to participant withdrawal
- Any non-serious solicited or unsolicited AE leading to discontinuation of vaccinations (2-dose groups only)
- Any severe unsolicited AE within 28 days
- Any unsolicited AE within 28 days
- Any unsolicited AE related to IP within 28 days
- Any solicited AE

Similar tables will be presented by site (Table 36, Table 37, Table 38, Table 39, Table 40 and Table 41, respectively).

8.1.2. Solicited Symptoms

Solicited events will be summarized by computing the proportion of participants with observation of any event and any event according to event type, over all vaccinations within groups, and for each vaccination individually within group. Additional analyses will summarize the frequency and duration of events ongoing 7 days post-study vaccine administration. Summaries will be prepared corresponding to maximum severity and duration per participant, where relevant. Solicited adverse event rates will be accompanied by two-sided exact 95% confidence intervals. Within cohorts (separately for each type), the rate of solicited adverse events will be compared using a two-sided Fisher's exact test for pairwise comparisons, both overall and by type following each dose, and overall (across doses); this will be repeated for severe and for moderate or greater events.

A summary table of the proportions of participants with any solicited AE and with each solicited AE, by cohort, dose and study vaccine, including Fisher's exact test p-values for pairwise comparisons between nOPV and mOPV recipients, will be presented in Table 26. A similar table will be presented summarizing participants with moderate or greater events and with severe events, Table 27.

The maximum reported severity per participant of any solicited AE and each solicited AE, by cohort, dose, study vaccine and severity, will be summarized in Table 28.

Summaries (frequency and percent of participants) of the severity distribution of solicited AEs reported on the day of vaccination and each of the following 6 days will be presented by vaccine group in Table 29 (cohort 1), Table 30 (cohort 2), Table 31 (cohort 3), Table 32 (cohort 4), Table 33 (post-dose 1 in cohorts 1 and 2 combined), Table 34 (post-dose 1 in cohorts 3 and 4 combined).

The frequency and duration in days (mean, SD, median, minimum and maximum) of solicited AEs ongoing at 7 days post-study vaccine administration will be summarized in Table 35 and listed in Listing 12.

Table 26 through Table 35 will be repeated by site (Table 42 to Table 51).

The proportion of participants with each event will be summarized graphically for the safety population in bar charts based on maximum reported severity, by treatment group post-dose 1 (Figure 2), post-dose 2 (Figure 3) and by product received and dose number (Figure 4).

A listing of all solicited adverse events by participant will be prepared (Listing 10).

8.1.3. Unsolicited Adverse Events

All unsolicited adverse events will be listed and summarized in tables. Unless an AE is classified as an SAE, summaries of unsolicited AEs will be made using only those events recorded with onset within 28 days of the prior vaccine dose. Unsolicited adverse events will primarily be summarized on the participant level, where a participant contributes once to a given event type under the maximum severity and/or causality, as appropriate. Tables will additionally display the number of events of a given type observed within a group, regardless of the number of participants from which they originate.

Unsolicited adverse events will be summarized by severity, for all AEs by cohort and vaccine dose (Table 52), all AEs by study vaccination (Table 53) and similarly for those related to study product (Table 54 and Table 55).

SAEs will be summarized overall and by reason for seriousness designation by vaccine group (Table 56) and study vaccination (Table 57).

All AEs, coded with MedDRA, will be summarized by System Organ Class (SOC) and Preferred Term (PT), by vaccine group (Table 58) and by study vaccination (Table 59). Similar summaries will be presented but excluding SAEs and including solicited AEs in Table 60 (by vaccine group) and Table 61 (by study vaccination). Table 58 will be repeated for AEs related to study treatment (Table 62).

Similar tables will be presented for severe or greater unsolicited AEs (Table 63 and Table 64), severe or greater unsolicited AEs related to study treatment (Table 65 and Table 66), and SAEs (Table 67 and Table 68).

Each preferred term that occurs in ≥2% of participants in any group receiving the same study product will be summarized by vaccine group (Table 69) and by study vaccination (Table 70).

Similar summaries will include the rate of participants experiencing each AE (by PT) leading to discontinuation of vaccination (Table 71, by vaccine group), or to study withdrawal (Table 72 and Table 73).

Within each cohort, the rates of participants experiencing SAEs, severe AEs and AEs related to study product, will be compared between the 2 groups (i.e., nOPV1 versus mOPV1, and nOPV3 versus mOPV3) using a two-sided Fisher's exact test for pairwise comparisons (Table 74). The table will also include comparisons of the overall rates of events between nOPV1 and mOPV1 recipients, and between nOPV3 and mOPV3 recipients.

Listings will be prepared of all non-serious, severe AEs (Listing 13) and all non-serious AEs related to study product (Listing 14).

A listing of all unsolicited AEs by participant will be presented (Listing 11).

Preferred terms that occur in ≥10% of participants in any one vaccine group will be summarized graphically for the safety population in bar charts by vaccine group post-dose1 (Figure 5), by vaccine group post-dose 2 (Figure 6) and by product received post-dose 1 and post-any dose (Figure 7), based on maximum reported severity within 28 days of vaccination.

8.2. Deaths and Serious Adverse Events

Deaths and SAEs will be listed (Listing 15).

8.3. Birth Control and Pregnancies

A listing of all birth control methods used by females in the study is presented in Listing 22. For any female participants in the Safety population who become pregnant during the study, every attempt will be made to follow these participants through completion of pregnancy to document the outcome, including information regarding any complications with pregnancy and/or delivery. All reported pregnancies and outcomes will be presented in Listing 23 and details on any previous pregnancies will be presented in Listing 24.

8.4. Clinical Laboratory Evaluations

Each continuous hematology and chemistry laboratory test will be evaluated by means of descriptive statistics (i.e., number of participants, mean, SD, median, minimum, and maximum) on the actual values, at each assessment time point and by group. Changes from baseline will also be summarized by assessment time point and by group.

Clinical safety laboratory test values will be evaluated according to the table for grading the severity of adverse events (Table 3) or in accordance with the normal ranges of the clinical laboratory (below, within, or above normal range) for parameters for which no toxicity grades are defined.

Clinical laboratory abnormalities will be summarized by group, parameter, time point and grade, including the maximum grade post-baseline abnormality for each participant for each parameter. Summaries will include any baseline abnormality across parameters within group, and any post-baseline abnormality across visits within parameters, as well as across parameters and visits.

Abnormalities will also be summarized in a shift table, displaying the frequency of post-baseline abnormalities (i.e., day 8) by grade (with separate categories for high and for low values of a given lab, where relevant) cross-tabulated with the baseline classification for each lab.

Boxplots will display the raw value by lab parameter and study collection day and will include separate symbols to depict values out of range, and those that are grade 2 or higher.

Descriptive statistics of each laboratory parameter are presented by group and time point, and by study vaccination and time point, respectively, in the following pairs of tables:

Hemoglobin	(Table 75 and Table 76),
Hematocrit	(Table 77 and Table 78),
WBC	(Table 79 and Table 80),
Neutrophils	(Table 81 and Table 82),
Lymphocytes	(Table 83 and Table 84),
Eosinophils	(Table 85 and Table 86),
Platelets	(Table 87 and Table 88),
ALT	(Table 89 and Table 90),
Total Bilirubin	(Table 91 and Table 92),
Creatinine	(Table 93 and Table 94).

Similarly, the distribution of the severity of abnormal laboratory results, including maximum reported severity post-baseline, will be presented by treatment group and time point, and by study vaccination and time point, respectively, in the following tables:

Maximum severity over all CBC parameters (Table 95 and Table 96),

Low Hemoglobin	(Table 97 and Table 98),
Hematocrit	(Table 99 and Table 100),
WBC	(Table 101 and Table 102),
Low Neutrophils	(Table 103 and Table 104),
Low Lymphocytes	(Table 105 and Table 106),
Elevated Eosinophils	(Table 107 and Table 108),
Low Platelets	(Table 109 and Table 110),

Maximum severity over all Serum Chemistry Parameters (Table 111 and Table 112),

Elevated ALT	(Table 113 and Table 114),
Elevated Total Bilirubin	(Table 115 and Table 116),
Elevated Creatinine	(Table 117 and Table 118).

Shift tables, displaying the frequency of day 8 abnormalities by grade (with separate categories for high and for low values of a given lab, where relevant) cross-tabulated with the baseline classification will be presented for each laboratory parameter assessed for toxicity. Each parameter will be summarized in a separate table in Appendix 1:

Hemoglobin (Table 119),
WBC (Table 120),
Neutrophils (Table 121),
Lymphocytes (Table 122),
Eosinophils (Table 123),
Platelets (Table 124),
ALT (Table 125),
Total Bilirubin (Table 126)
Creatinine (Table 127).

The distribution of laboratory parameter results over time is presented graphically in box-and-whisker plots, displaying the mean, median, IQR and individual values. For each parameter, results will be presented by treatment group and by study vaccine, respectively in the following figures:

Hemoglobin (Figure 8 and Figure 9),
Hematocrit (Figure 10 and Figure 11),
WBC (Figure 12 and Figure 13,
Neutrophils (Figure 14 and Figure 15),
Lymphocytes (Figure 16 and Figure 17),
Eosinophils (Figure 18 and Figure 19),
Platelets (Figure 20 and Figure 21),
ALT (Figure 22 and Figure 23),
Total Bilirubin (Figure 24 and Figure 25)
Creatinine (Figure 26 and Figure 27).

A complete listing of all clinical labs will be presented in Listing 17.

8.5. Vital Signs and Physical Examinations

Vital signs measurements, including systolic blood pressure (mmHg), diastolic blood pressure (mmHg), oral temperature (°F), respiratory rate (breaths / minute) and pulse rate (beats / minute) will be assessed at the screening visit and prior to each scheduled vaccination on Day 1 (all subjects) and Day 29 (Cohorts 2 and 4). Descriptive statistics for each parameter will be presented by parameter, visit, and vaccine group in Table 128 and by study vaccination in Table 129. The severity distribution of each parameter will be summarized by visit and vaccine group in Table 130 and by study vaccination in Table 131.

A full vital signs listing will be prepared in Listing 18.

The frequency of clinically significant physical exam findings will be summarized by vaccine group and time point in Table 132 and by study vaccine and time point Table 133, and a complete listing will be presented in Listing 19.

9. IMMUNOGENICITY

All immunogenicity analyses will be performed in the PPP and repeated in the FAP. All descriptive analyses will be conducted across all participants within a group/time point combination, and these will be repeated for each site.

9.1. Descriptive Analyses

Descriptive analyses will be performed at each time point where NAb titers are obtained:

- Median of $\log_2$ antibody titers will be computed along with 95% CIs
- GMT with accompanying 95% CIs will be computed. GMTs will be estimated with likelihood-based methods (SAS PROC LIFEREG) to accommodate censoring at assay ULOQ and LLOQ.
- The geometric mean fold rise (GMFR) will be computed for each post-baseline time point as the reverse-transformed difference between the post-baseline $\log_2$ value and the baseline $\log_2$ value and accompanied by two-sided paired-sample 95% CIs computed using asymptotic methods on the $\log_2$ scale, then reverse-transformed. A subgroup analysis of GMFR will consider only those participants with values between the LLOQ and ULOQ (exclusive of the endpoints) for the numerator and denominator samples. For post-dose 2 GMFR, this will be computed from baseline, and from the pre-dose 2 titer. Among these participants, a plot of $\log_2$ fold rise versus baseline $\log_2$ antibody titer will be generated.
- Type-specific seroconversion rates with 95% exact CIs will be tabulated for post-vaccination time points. Seroconversion rate will be computed among those participants with seroconversion possible to observe (pre-dose titer within 4-fold of the assay ULOQ). For post-dose 2 seroconversion, seroconversion rates will be computed both from baseline and from the pre-dose 2 titer
    - In addition, the rate of any fold-rise (titer increased from baseline) and a minimum 2-fold rise in titer and accompanying CIs will be computed in the same manner
- Type-specific seroprotection rates with 95% exact CIs will be tabulated
- Plots of the reverse cumulative distribution of antibody titers will be generated

Additional figures will display immunity and changes in immunity over time, by type. Additional subgroup computations will be specified and conducted, per the SAP.

9.2. Comparative Analyses

No specific immunogenicity hypothesis is to be tested. Descriptive comparative evaluation will be conducted with multiple endpoints; such evaluations will be conducted for the nOPV-vaccinated groups compared to the mOPV-vaccinated control groups within type, and within background vaccination cohort (within groups defined by exclusive IPV prior vaccination, and separately among those previously receiving OPV). Separately for each pairwise comparison, the NAb GMT ratio (nOPV/mOPV) will be estimated via a linear model of the $\log_2$ NAb titer as a function of group with a fixed parameter for site and a covariate for the baseline $\log_2$ NAb titer level. This will be conducted using SAS PROC LIFEREG to account for censoring of the dependent variable assuming a Normal error distribution on the $\log_2$ scale; baseline values achieving ULOQ or LLOQ will be replaced with ULOQ or LLOQ, as appropriate, for the covariate. The log-scale difference

and its corresponding confidence interval, estimated with SAS LSMEANS (within PROC LIFEREG), will be reverse transformed to obtain the estimated GMT ratio and corresponding 95% confidence interval. Among the subset of participants where baseline and post-baseline NAb titers are below the assay ULOQ, the fold rise in titer will be computed, and these fold-rises will be compared between nOPV vs mOPV groups within background vaccination cohort and type using standard t-distribution methodology.

Similar comparisons will be made for seroprotection rates, seroconversion rates, and other response rates (any fold-rise, 2-fold rise). For these binary variables, two-sided 95% Miettinen and Nurminen confidence intervals for the rate difference (nOPV minus mOPV) will be computed, and these will be supplemented with a two-sided Fisher exact test p-value.

Imbalance in baseline immunity between sites will be evaluated via the Kruskal-Wallis test for Nab titers. Wherever the global test is significant at two-sided level $\alpha = 0.10$, pairwise comparisons will be drawn from the Wilcoxon test.

9.3. Displays of Results

All results will be presented in table pairs, for the per-protocol (PPP) and full analysis (FAP) populations, respectively, except for select tables by sex which will be presented in the PPP only. Descriptive statistics of Types 1 to 3 NAb titers, including mean, SD, median, bootstrap 95% CI for the median, minimum and maximum, will be presented by time point, cohort and study vaccination in Table 134 (PPP), Table 135 (SAPPP) and Table 136 (FAP). Descriptive statistics of type-specific NAb titers will be presented for the PPP by sex in Table 137 (male participants) and Table 138 (female participants). Change from pre-dose descriptive statistics for Types 1 to 3 NAb titers, including GMFR (95% CI) and Seroconversion rate (95% CI) will be presented in Table 139 (PPP) and Table 140 (FAP).

Descriptive statistics of type-specific NAb titers will be presented for the PP population by site in Table 141 and for the FAP in Table 143. Change from pre-dose descriptive statistics of type-specific NAb titers will be presented for the PP population by site in Table 142 and for the FAP in Table 144.

The distribution of NAb titers will be presented graphically as box-and-whisker plots by cohort, time point and study vaccination in Figure 28. Reverse cumulative distribution (RCD) curves by time point will be presented for cohorts 1 and 2 in Figure 29 (Type 1 NAb's), Figure 30 (Type 2 NAb's) and Figure 31 (Type 3 NAb's), then for cohorts 3 and 4 in Figure 32 (Type 1 NAb's), Figure 33 (Type 2 NAb's) and Figure 34 (Type 3 NAb's).

The distribution of fold-rise from baseline in Types 1 to 3 NAb titers will be presented graphically as box-and-whisker plots by cohort, time point and study vaccination in Figure 35 (cohort 1 and cohort 3). Similar plots, including fold-rise from pre-dose 2, will be presented in Figure 36 (cohort 2) and Figure 37 (cohort 4).

Baseline comparisons between sites of median NAb titers will be presented in Table 145 (PPP) and Table 146 (FAP), including overall comparisons based on the Kruskal-Wallis (K-W) test and pairwise comparisons based on the Wilcoxon 2-sample test. Note that, although all pairwise comparisons are presented, they are only valid when the K-W test is statistically significant ($p \leq 0.10$).

Between-group comparisons of NAb titer GMTs (maximum-likelihood estimate and 95% CI) will be presented in Table 147 (PPP), Table 148 (SAPPP) and Table 149 (FAP), by time point, cohort and vaccination group. Within each cohort, the GMT estimates and pairwise comparisons between the nOPV and mOPV groups (GMT ratio: nOPV/mOPV, 95% CI and p-value) will be calculated from a single model, including site as a covariate (see pseudo code below).

Pseudo code for each model:

ODS OUTPUT LSMEANS=LSM ParameterEstimates=Ests DIFFS=pdiffs;

PROC LIFEREG data=*a2*;

CLASS Site Trt;

MODEL (Lower, Upper) = Site Trt Baseline;

LSMEANS Trt / CL DIFF;

RUN;

ODS OUTPUT CLOSE;

Where:

Lower=Missing and Upper is set to LLOQ if $\log_2$ NAb titer<=LLOQ

Upper=Missing and Lower is set to ULOQ if $\log_2$ NAb titer >=ULOQ

Otherwise Lower = Upper = $\log_2$ NAb titer.

Baseline values ≤LLOQ and ≥ULOQ will be set to LLOQ and ULOQ, respectively.

The data set LSM will contain the GMT and 95% CI estimates for each group.

The data set pdiffs will contain the least squares estimates of group differences (and 95% CIs)

The data set Ests will contain the same as pdiffs but for all parameters.

Between-group comparisons of NAb titer GMFR, from baseline and from pre-dose 2 (estimate and 95% CI), will be presented in Table 150 (PPP), Table 151 (SAPPP) and Table 152 (FAP), by post-dose time point, cohort and vaccination group. Within each cohort, the GMFR estimates and pairwise comparisons between the nOPV and mOPV groups (GMFR ratio: nOPV/mOPV, 95% CI and p-value) will be calculated using SAS PROC TTEST (i.e., unadjusted for site). The unit of analysis will be the difference between $\log_2$ NAb titer and baseline (or pre-dose 2) $\log_2$ NAb titer for each subject. Participants with baseline and/or post-baseline NAb titers ≥ULOQ will be excluded from these analyses. A similar analysis will be performed in the quantifiable PPP (i.e., including only those participants with baseline and post-baseline NAb titers >LLOQ and <ULOQ) in Table 153 and Table 154 (SAPPP).

Seroprotection rates (titer ≥ 1:8) and pairwise group comparisons (nOPV versus mOPV), by time point, cohort and vaccination group, will be presented in Table 155 (PPP), Table 156 (SAPPP) and Table 157 (FAP), including number, percent and 95% CI of subjects with seroprotection, and the rate difference, 95% CI and p-value.

Seroconversion rates (fold-rise ≥ 4) and pairwise group comparisons (nOPV versus mOPV), by post-dose time point, cohort and vaccination group, will be presented in Table 158 (PPP), Table 159 (SAPPP) and Table 160 (FAP) including number, percent and 95% CI of subjects seroconverting, and the rate difference, 95% CI and p-value. Seroconversion rates will be

calculated with respect to baseline and pre-dose 2 values where appropriate. Similar tables will be presented for additional endpoints: fold- rise ≥ 2 (Table 161, Table 162 (SAPPP) and Table 163) and any increase in NAb titer (Table 164, Table 165 (SAPPP) and Table 166).

A full listing of all NAb titer results, including titer, seropositivity (Y/N), fold-rise and seroconversion (Y/N) from baseline from pre-dose 2, is presented in Listing 20.

10. VIRAL SHEDDING

For each group and time point, viral shedding positivity (PCR) and infectivity (log_{10} $CCID_{50}$ per gram) will be summarized, as well as a summary of infectivity among those PCR-positive for (only) the vaccine virus. Positivity will be accompanied by two-sided exact 95% confidence intervals for the proportion, and infectivity will be summarized with the median and bootstrap-based 95% CI. All samples will be evaluated for the appropriate virus type (1 or 3). Participants PCR-positive for type-specific viral shedding of only the appropriate virus but with log_{10} $CCID_{50}$ per gram equal to LLOQ will contribute a value equal to the LLOQ; participants PCR-negative for viral shedding of the appropriate virus will contribute a value of zero. A summary will also be produced for each post-dose period of the proportion of participants contributing any PCR-positive sample, any culture-positive sample (>2.75 log_{10} $CCID_{50}$ per gram), and those with log_{10} $CCID_{50}$ per gram ≥4.0).

A summary and comparison of viral shedding positivity within each cohort at each time point will be presented in Appendix 1 for Cohort 1 (Table 167), Cohort 2 (Table 168), Cohort 3 (Table 169) and Cohort 4 (Table 170). Each table also includes comparisons of the proportion of participants with any PCR-positive sample, any culture-positive sample (>2.75 log_{10} $CCID_{50}$ per gram) and any log_{10} $CCID_{50}$ per gram ≥4.0 as measured by the rate difference and rate ratio.

Median viral shedding infectivity (log_{10} $CCID_{50}$ per gram) and bootstrap 95% CIs, with corresponding pairwise group comparisons will be presented for all participants in Appendix 1 for Cohort 1 (Table 171), Cohort 2 (Table 172), Cohort 3 (Table 173) and Cohort 4 (Table 174).

The median viral shedding infectivity tables will be repeated in the subgroup of PCR-positive participants at each time point for Cohort 1 (Table 175), Cohort 2 (Table 176), Cohort 3 (Table 177) and Cohort 4 (Table 178).

Visual displays of viral shedding infectivity (log_{10} $CCID_{50}$ per gram) at each timepoint for each treatment group will be presented in RCD curves for cohort 1 (Figure 44), cohort 2 (Figure 45), cohort 3 (Figure 46) and cohort 4 (Figure 47).

Additionally, the distribution of viral shedding log_{10} $CCID_{50}$ per gram results over time (at each nominal visit) will be displayed in box-and-whisker plots by cohort and study vaccine in Figure 51 (prior IPV recipients) and Figure 52 (prior OPV recipients).

The Shedding Index Endpoint (SIE) will be computed as the arithmetic mean per participant of the log_{10} $CCID_{50}$ per gram from nominal collection days 7, 14, 21, and 28 post-dose (e.g., study days 8, 15, 22, and 29 following the first dose), and presented in Table 179, and Figure 48 (RCD curves).

Similar to the SIE, the area under the curve (AUC) will be computed for each participant over the $CCID_{50}$ per gram results. The AUC will be calculated using the linear trapezoidal rule (Table 180). The distribution of the log_{10} AUC will be presented graphically by RCD curves in Figure 49 (prior IPV recipients) and Figure 50 (prior OPV recipients).

SIE and AUC will be computed for each of the study populations as defined in Section 6.3.6 and Table 7.

Time to cessation of shedding is defined as the time (days) between vaccination and last PCR-positive stool prior to 2 consecutive PCR-negative stools (with a minimum 24-hour interval between the 2 negative stools). Participants for whom shedding cessation is observed will

generally be interval-censored, with cessation known to occur between the last positive sample and the first of two consecutive negative samples. The SAS procedure ICLIFETEST (see pseudo code below) will be used for analysis which is based on interval-censored methodology. For previously OPV-vaccinated participants, time to cessation will be evaluated separately following each dose; following the first dose, participants who have not ceased shedding the first dose by the time of the 2nd dose will be right-censored at the date of receipt of the 2nd dose. Following the second dose in previously OPV-vaccinated participants and following the first dose in previously IPV-vaccinated participants, those who have not ceased shedding by study day 57 will continue to be monitored approximately weekly until cessation is confirmed. Participants who terminate early without confirmation of cessation, or who have not ceased by day 57 and do not return for further observation, will be right censored at the last positive sample.

Pseudo code:

ODS OUTPUT QUARTILES=Q HOMTESTS=pval;

PROC ICLIFETEST plots=survival(cl) data=<> impute(seed=xxxxxxxx);

TEST <group variable>;

TIME (Ltest, Rtest);

RUN;

Where:

- *Ltest is the day of the last positive test for shedding (none of these will be missing).*
- *Rtest is the day of the 1st negative test after Ltest, if shedding cessation confirmed*
- *Rtest is missing otherwise.*
- *Dataset Q contains the 25th, 50th and 75th quartiles of time to cessation per group, if they exist.*
- *Dataset pval contains the generalized log-rank test p-value.*

Figures of the time to cessation will display point estimates of the probability of cessation together with 95% CIs based on the multiple estimation method. The estimated quartiles of time to cessation of shedding with corresponding 95% CIs will be computed and summarized in Table 181 (prior IPV recipients) and Table 182 (prior OPV recipients), and figures will be prepared denoting the estimate, with symbols used to indicate censored data points. The generalized log-rank test will be used to provide a test for a difference among survival curves between groups within cohorts. Quartile estimates and log-rank test results will be presented, along with estimated proportion reaching the cessation endpoint for each nominal sampling day (Table 183 prior IPV, Table 184 prior OPV). Graphical displays of time to cessation of fecal shedding, by cohort and study vaccine, will be presented for each endpoint based on the analyses described above, and will include:

- Figure 38 (prior IPV participants) and Figure 39 (prior OPV recipients) based on PCR results;
- Figure 40 (prior IPV participants) and Figure 41 (prior OPV recipients) based on $\log_{10}$ $CCID_{50}$ per gram >2.75;
- Figure 42 (prior IPV participants) and Figure 43 (prior OPV recipients) based on $\log_{10}$ $CCID_{50}$ per gram ≥4.0.

A full listing of viral shedding results will be presented in Listing 21.

11. REPORTING CONVENTIONS

P-values will be reported to 3 decimal places; p-values less than 0.001 will be reported as "<0.001" and p-values greater than 0.999 will be reported as ">0.999". The median, minimum and maximum will be reported on the same scale as the original data. The mean, standard deviation and CIs will be reported to one additional decimal place. Proportions will be reported to 2 decimals and percentages will be reported to one decimal, with corresponding 95% CIs reported to one additional decimal.

12. TECHNICAL DETAILS

SAS version 9.4 or above will be used to generate all tables, figures and listings.

13. SUMMARY OF CHANGES IN THE CONDUCT OF THE STUDY OR PLANNED ANALYSES

The time to cessation of shedding endpoints are evaluated with interval-censored methodology to better align with periodic sampling scheme, whereas this was initially described as “Kaplan-Meier methods” in the study protocol.

After a sequencing analysis of the study vaccine profiles in Cohorts 1 and 3, some participants were identified as having experienced a contamination or transmission event. These participants are to be excluded from post-day 8 safety, immunogenicity (PPP) and shedding analyses. As a consequence, the safety population was split into a reactogenicity population (defined in Section 6.3.2), and a (reduced) safety population (Section 6.3.3).

Additionally, some serum samples were identified as missing during dataset reconciliation and were tested separately from the rest of the samples for their vaccine type (Type 1 or Type 3). Serology results were provided in March 2023 for these outstanding samples. Select tables of neutralizing antibody titers are repeated using the SAPPP, which is based on the PPP, but excludes these additional data.

14. REFERENCES

Not applicable.

15. APPENDIX 1
TABLES

LIST OF TABLES

Table 5: Schedule of Study Visits and Evaluations

Participants with an Exclusive IPV Vaccination History (Cohorts 1 and 3: Single-dose groups)														
Procedure	Screen	Visits												
Study Day (allowed window days)	-90 to 1	1	3	5	8 (+1)	10	15	22	29 (+2)	36	43	50	57	169 (+14)
Clinic visits	X	X			X				X					X
Stool collection[#]			X	X	X	X	X	X	X	X	X	X	X[1]	
Allowed stool collection window			±1	±1	D8±1	±1	±2	±2	D29±3	±1	±2	±2	±3	
Informed consent	X													
Eligibility criteria	X	X												
Demographic data	X													
Medical history	X													
Concomitant medication	X									X[2]				
Full physical exam (PE) with VS	X													
Vital signs (VS)		X												
Targeted PE with VS, if indicated		X			X				X					X[4]
Blood for HIV1/2, HBsAg, HCV Ab, total IgG & IgA, pregnancy in FOCP	X													
Blood for CBC & chemistry	X	X[3]			X									
Blood for type-specific poliovirus neutralizing Ab	X								X					
Urine pregnancy in FOCP		X												
Randomization		X[5]												
Study vaccine		X												
Collect solicited AEs		X												
Collect unsolicited AEs		X												

Collect SAEs		X

Participants with an OPV-Containing Vaccination History (Cohorts 2 and 4: Two-dose groups)											
Procedure	Screen	Visits									
Study Day (allowed window days)	-56 to 1	1	8 (+1)	15	22	29 (+2)	36 (+1)	43	50	57 (+2)	169 (+14)
Clinic visits	X	X	X			X	X			X	
Stool collection			X	X	X	X	X	X	X	X[1]	
Allowed stool collection window			±1	±2	±2	±3	±1	±2	±2	±3	
Informed consent	X										
Eligibility criteria	X	X				X					
Demographic data	X										
Medical history	X										
Concomitant medication	X										X[2]
Full physical exam (PE) with VS	X										
Vital Signs (VS)		X				X					
Targeted PE with VS, if indicated		X	X			X	X			X	X[4]
Blood for HIV1/2, HBsAg, HCV Ab, total IgG & IgA, pregnancy in FOCP	X										
Blood for CBC & chemistry	X	X[3]	X								
Blood for type-specific poliovirus neutralizing Ab	X					X				X	
Urine pregnancy in FOCP		X				X					
Randomization		X[5]									
Study vaccine		X				X					
Collect solicited AEs		X				X					
Collect unsolicited AEs		X									

Collect SAEs		X

– Subjects may contribute additional stool samples between nominal sampling days, if available
x[1] – If cessation of vaccine virus shedding not confirmed, collections will continue approximately weekly until cessation confirmed
x[2] – Only those associated with SAEs or COVID-19 vaccinations
x[3] – The results of these laboratory tests are not required for eligibility, but will be used as baseline for analyses
X[4] – Day 169 assessments will be performed via telephone. The participants will only come to the clinic if a physical exam is indicated.
X[5] – Randomization can be done prior to Day 1 after confirmation of eligibility

Table 6: Analysis Populations by Cohort and Study Group – All Participants

Cohorts 1 and 2								
Analysis Population	**Inclusion, Exclusion, Reason for Exclusion**	**Cohort 1**		**Cohort 2**		**Cohort 1 + 2**		
		nOPV1	**mOPV1**	**nOPV1**	**mOPV1**	**nOPV1**	**mOPV1**	**Total**
Enrolled participants		**n**	**n**	**n**	**n**	**n**	**n**	**n**
Screened	Total	NA	NA	NA	NA	NA	NA	xx
Eligible, Not Enrolled	Total	NA	NA	NA	NA	NA	NA	xx
Screen Failure	Total	NA	NA	NA	NA	NA	NA	xx
Randomized participants		**N=**	**N=**	**N=**	**N=**	**N=**	**N=**	**N=**
Reactogenicity Population	Included (vaccinated)	xx (xx.x)	xx (xx.x)	xx (xx.x)	xx (xx.x)	xx (xx.x)	xx (xx.x)	xx (xx.x)
	Excluded (not vaccinated)	xx (xx.x)	xx (xx.x)	xx (xx.x)	xx (xx.x)	xx (xx.x)	xx (xx.x)	xx (xx.x)
Safety Population	Included	xx (xx.x)	xx (xx.x)	xx (xx.x)	xx (xx.x)	xx (xx.x)	xx (xx.x)	xx (xx.x)
	Excluded (possible transmission event)	xx (xx.x)	xx (xx.x)	xx (xx.x)	xx (xx.x)	xx (xx.x)	xx (xx.x)	xx (xx.x)
Post-First Vaccination		**m (%)**	**m (%)**	**m (%)**	**m (%)**	**m (%)**	**m (%)**	**m (%)**
Full Analysis Population (FAP)	Included	xx (xx.x)	xx (xx.x)	xx (xx.x)	xx (xx.x)	xx (xx.x)	xx (xx.x)	xx (xx.x)
	Excluded							
	No baseline serum sample							
	No post-vaccination serum sample							
Per-Protocol Population (PPP)	Included							
	Excluded							

Cohorts 1 and 2								
	Did not receive vaccination per randomization							
	Major Protocol Deviation [a]							
Post-Second Vaccination [b]		**m (%)**	**m (%)**	**m (%)**	**m (%)**	**m (%)**	**m (%)**	**m (%)**
Reactogenicity Population	Included (received vaccine dose 2)							
	Excluded (did not received vaccine dose 2)							
Safety Population	Included							
	Excluded							
	Did not receive vaccine dose 2							
Full Analysis Population (FAP)	Included							
	Excluded							
	No baseline serum sample							
	No post-vaccination serum sample							
Per-Protocol Population (PPP)	Included							
	Excluded							
	Did not receive both vaccinations per randomization							
	Major Protocol Deviation [a]							
Post-Second Vaccination (relative to pre-dose 2) [c]		**m (%)**	**m (%)**	**m (%)**	**m (%)**	**m (%)**	**m (%)**	**m (%)**
Full Analysis Population (FAP)	Included							
	Excluded (no pre-dose 2 serum sample)							
Per-Protocol Population (PPP)	Included							
	Excluded							

Cohorts 1 and 2								
	Did not receive vaccination per randomization							
	Major Protocol Deviation [a]							
	No pre-dose 2 serum sampl)							

n = Number of enrolled participants. N = Number of randomized participants. m (%) = Number of participants out of number randomized.

NA = Not applicable.

Full Analysis Population (FAP): all participants in the Reactogenicity Population who provided a baseline and applicable 28-day post-dose evaluable serum NAb sample.

Per-Protocol Population (PPP) Post-First Vaccination: all participants in the FAP who correctly received the first study vaccination per randomization, with no major protocol deviations that were determined to potentially interfere with the post-dose 1 immunogenicity result of the participant.

Per-Protocol Population (PPP) Post-Second Vaccination: all participants in the FAP who correctly received both study vaccinations per randomization, with no major protocol deviations that were determined to potentially interfere with the post-dose 2 immunogenicity result of the participant.

[a] Major protocol deviations that occur prior to collection of follow-up immunogenicity sample 28 days post-dose, other than administration of incorrect vaccine.

[b] Post-second vaccination populations used for all analyses, including analyses of change from baseline parameters.

[c] Post-second vaccination population used for analyses of change from pre-dose 2 parameters.

Repeat for Cohorts 3 and 4. Replace nOPV1, mOPV1 with nOPV3, mOPV3.

Table 7: Viral Shedding Analysis Populations by Cohort and Study Group – All Participants

		Cohort 1: Prior IPV		Cohort 2: Prior OPV		Cohort 3: Prior IPV		Cohort 4: Prior OPV	
Analysis Population	**Inclusion, Exclusion**	**nOPV1**	**mOPV1**	**nOPV1**	**mOPV1**	**nOPV3**	**mOPV3**	**nOPV3**	**mOPV3**
		m (%)	**m (%)**	**m (%)**	**m (%)**	**m (%)**	**m (%)**	**m (%)**	**m (%)**
Post-First Vaccination		**N=**	**N=**	**N=**	**N=**	**N=**	**N=**	**N=**	**N=**
SIE_1 (0 – 28)	Included	x (xx.x)	x (xx.x)	x (xx.x)	x (xx.x)	x (xx.x)	x (xx.x)	x (xx.x)	x (xx.x)
	Excluded	x (xx.x)	x (xx.x)	x (xx.x)	x (xx.x)	x (xx.x)	x (xx.x)	x (xx.x)	x (xx.x)
AUC_1 (0 – 28)	Included	NA	NA	x (xx.x)	x (xx.x)	NA	NA	x (xx.x)	x (xx.x)
	Excluded	NA	NA	x (xx.x)	x (xx.x)	NA	NA	x (xx.x)	x (xx.x)
AUC_2 (0 – 28)	Included	x (xx.x)	x (xx.x)	NA	NA	x (xx.x)	x (xx.x)	NA	NA
	Excluded	x (xx.x)	x (xx.x)	NA	NA	x (xx.x)	x (xx.x)	NA	NA
AUC_3 (0 – 56)	Included	x (xx.x)	x (xx.x)	NA	NA	x (xx.x)	x (xx.x)	NA	NA
	Excluded	x (xx.x)	x (xx.x)	NA	NA	x (xx.x)	x (xx.x)	NA	NA
Post-Second Vaccination [a]		**N=**	**N=**	**N=**	**N=**	**N=**	**N=**	**N=**	**N=**
SIE_2 (28 – 56)	Included		NA	x (xx.x)	x (xx.x)	NA	NA	x (xx.x)	x (xx.x)
	Excluded		NA	x (xx.x)	x (xx.x)	NA	NA	x (xx.x)	x (xx.x)
AUC_4 (28 – 56)	Included	NA	NA	x (xx.x)	x (xx.x)	NA	NA	x (xx.x)	x (xx.x)
	Excluded	NA	NA	x (xx.x)	x (xx.x)	NA	NA	x (xx.x)	x (xx.x)
Post-Second Vaccination Subgroup [b]		**N=**	**N=**	**N=**	**N=**	**N=**	**N=**	**N=**	**N=**
SIE_3 (28 – 56)	Included	NA	NA	x (xx.x)	x (xx.x)	NA	NA	x (xx.x)	x (xx.x)
	Excluded	NA	NA	x (xx.x)	x (xx.x)	NA	NA	x (xx.x)	x (xx.x)
AUC_5 (28 – 56)	Included	NA	NA	x (xx.x)	x (xx.x)	NA	NA	x (xx.x)	x (xx.x)

		Cohort 1: Prior IPV		Cohort 2: Prior OPV		Cohort 3: Prior IPV		Cohort 4: Prior OPV	
	Excluded	NA	NA	x (xx.x)	x (xx.x)	NA	NA	x (xx.x)	x (xx.x)

n = Number of enrolled participants. N = Number of randomized participants. m (%) = Number of participants out of number randomized.

NA = Not applicable.

SIE_1 (0 – 28): Complete data from post-dose 1 days 7, 14, 21 and 28.

SIE_2 (28 – 56): Complete data from post-dose 2 days 7, 14, 21 and 28.

SIE_3 (28 – 56): Same as SIE_2 but in participants whose last sample prior to dose 2 was negative for shedding.

AUC_1 (0 – 28): Data from all post-dose 1 samples collected from day 7 to day 28 for prior OPV-vaccinated participants, and must have data from day 7 and day 28, and either day 14 or day 21).

AUC_2 (0 – 28) Data from all post-dose 1 samples collected from day 2 to day 28 for prior IPV-vaccinated participants (must have data from day 2 and day 28, and no 2 missing consecutive samples from days 4, 7, 9, 14, 21).

AUC_3 (0 – 56): Data from all post-dose 1 samples collected from day 2 to day 56 for prior IPV-vaccinated participants (must have data from day 2 and day 56, and no 2 missing consecutive samples from days 4, 7, 9, 14, 21, 28, 35, 42, 49.

AUC_4 (28 – 56): Data from post-dose 2 samples in prior OPV-vaccinated participants collected from post-dose 2 day 7 to day 28 (must have data from day 7 and day 28, and either day 14 or day 21).

AUC_5 (28 – 56): Same as AUC_4 but in participants whose last sample prior to dose 2 was negative for shedding.

[a] All participants with a prior OPV vaccination who received the second study dose.

[b] Participants with a prior OPV vaccination who received the second study dose, whose last pre-dose 2 sample was negative for shedding.

Programming note: AUC is calculated using all data within the visit range interval, using actual collection dates. Inclusion/exclusion for each population (including SIE) is based on samples obtained within the visit windows for each of the nominal visits described in the footnotes.

Table 8: Summary of Screen Failures

		Potential Cohort [b]				
Inclusion/Exclusion Category	**Inclusion/Exclusion Criterion [a]**	**Cohort 1 Prior IPV**	**Cohort 2 Prior OPV**	**Cohort 3 Prior IPV**	**Cohort 4 Prior OPV**	**Total**
		n (%)	**n (%)**	**n (%)**	**n (%)**	**n (%)**
Any inclusion/exclusion criterion	Total	x (100)	x (100)	x (100)	x (100)	x (100)
Inclusion	Any inclusion criterion	x (xx.x)				
	[inclusion criterion 1]	x (xx.x)				
	[inclusion criterion 2]	x (xx.x)				
	Etc.	x (xx.x)				
Exclusion	Any exclusion criterion	x (xx.x)				
	[exclusion criterion 1]	x (xx.x)				
	[exclusion criterion 2]	x (xx.x)				
	Etc.	x (xx.x)				

n (%) = Number (%) of participants out of number of participants failing any inclusion/exclusion criterion.

[a] More than one criterion may be marked per participant.

[b] Enrollment into cohorts 1 and 2 was closed on 11MAR2022 and subsequent enrollments were to be enrolled into cohorts 3 and 4.

Table 9: Vaccine Administration - Safety Population

	Cohort 1 (N=)		Cohort 2 (N=)		Cohort 3 (N=)		Cohort 4 (N=)		nOPV1 (N=)	mOPV1 (N=)	nOPV3 (N=)	mOPV3 (N=)
	nOPV1 (N=)	mOPV1 (N=)	nOPV1 (N=)	mOPV1 (N=)	nOPV3 (N=)	mOPV3 (N=)	nOPV3 (N=)	mOPV3 (N=)				
	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)
Received 1st vaccination per protocol	x (x x)	x (x x)	x (x.x)	x (x x)	x (x x)	x (x x)	x (x x)	x (x.x)	x (x.x)	x (x x)	x (x.x)	x (x.x)
Received 1st vaccination not per protocol	x (x x)	x (x x)	x (x.x)	x (x x)	x (x x)	x (x x)	x (x x)	x (x.x)	x (x.x)	x (x x)	x (x.x)	x (x.x)
Reasons (if any)	x (x x)	x (x x)	x (x.x)	x (x x)	x (x x)	x (x x)	x (x x)	x (x.x)	x (x.x)	x (x x)	x (x.x)	x (x.x)
Received 2nd vaccination per protocol	NA	NA	x (x.x)	x (x x)	NA	NA	x (x x)	x (x.x)	NA	NA	NA	NA
Received 2nd vaccination not per protocol	NA	NA	x (x.x)	x (x x)	NA	NA	x (x x)	x (x.x)	NA	NA	NA	NA
Out of Window	NA	NA	x (x.x)	x (x x)	NA	NA	x (x x)	x (x.x)	NA	NA	NA	NA
Etc.	NA	NA	x (x.x)	x (x x)	NA	NA	x (x x)	x (x.x)	NA	NA	NA	NA
Did not receive 2nd vaccination	NA	NA	x (x.x)	x (x x)	NA	NA	x (x x)	x (x.x)	NA	NA	NA	NA
Treatment discontinuation	NA	NA	x (x.x)	x (x x)	NA	NA	x (x x)	x (x.x)	NA	NA	NA	NA
[other reason 1]	NA	NA	x (x.x)	x (x x)	NA	NA	x (x x)	x (x.x)	NA	NA	NA	NA
[other reason 2]	NA	NA	x (x.x)	x (x x)	NA	NA	x (x x)	x (x.x)	NA	NA	NA	NA
[etc]	NA	NA	x (x.x)	x (x x)	NA	NA	x (x x)	x (x.x)	NA	NA	NA	NA
Number of Days between Doses												
Mean (SD)	NA	NA	xx (xx)	xx (xx)	NA	NA	xx (xx)	xx (xx)	NA	NA	NA	NA
Median	NA	NA	xx	xx	NA	NA	xx	xx	NA	NA	NA	NA
Min, Max	NA	NA	xx, xx	xx, xx	NA	NA	xx, xx	xx, xx	NA	NA	NA	NA

N = Number of participants randomized and vaccinated. n (%) = Number of participants (percent of N).
SD = Standard deviation
Min, Max = Minimum and maximum number of days between doses.
NA = Not applicable.

Programming Note: include only non-zero reasons for treatment discontinuation.

Table 10: Participant Disposition by Cohort and Treatment Group - Safety Population

	Cohort 1		Cohort 2		Cohort 3		Cohort 4		Total (N=)
	nOPV1 (N=)	mOPV1 (N=)	nOPV1 (N=)	mOPV1 (N=)	nOPV3 (N=)	mOPV3 (N=)	nOPV3 (N=)	mOPV3 (N=)	
	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)
Protocol Completed	x (xx x)								
Early Termination									
Early Termination after dose 1 (and prior to dose 2 if applicable)									
For any reason									
Adverse event (other than death)									
Solicited event									
Lost to follow-up									
Etc.									
Early Termination after dose 2 (where applicable)									
For any reason	NA	NA			NA	NA			
Adverse event (other than death)	NA	NA			NA	NA			
Solicited event	NA	NA			NA	NA			
Lost to follow-up	NA	NA			NA	NA			
Etc.	NA	NA			NA	NA			
Discontinued treatment for reasons other than early termination (Cohorts 2 and 4)									
For any reason	NA	NA			NA	NA			
Adverse event	NA	NA			NA	NA			
Etc.	NA	NA			NA	NA			

N = Number of randomized and vaccinated participants. n (%) = Number of participants (percent of N). NA = Not applicable.

Table 11: Number of Participants Completing Each Scheduled Visit by Cohort and Treatment Group – Safety Population

Visit Number		Visit Day Relative to First Dose	Visit Day Relative to Second Dose	Cohort 1		Cohort 2		Cohort 3		Cohort 4		Total (N=)
Cohorts 1 and 3	Cohorts 2 and 4			nOPV1 (N=)	mOPV1 (N=)	nOPV1 (N=)	mOPV1 (N=)	nOPV3 (N=)	mOPV3 (N=)	nOPV3 (N=)	mOPV3 (N=)	
				n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)
01A	NA	3	-	x (xx x)		NA	NA			NA	NA	
01B	NA	5	-			NA	NA			NA	NA	
02	02	8	-									
02A	NA	10	-			NA	NA			NA	NA	
02B	02A	15	-									
02C	02B	22	-									
03	03	29	1									
03A	04	36	8									
03B	04A	43	15									
03C	04B	50	22									
03D	05	57	29									
04	06	169	141									
N = Number of participants randomized and vaccinated. n (%) = Number of participants (percent of N).												

Programming Note: for visit 01 (day 1) n=N and the percent would be 100, so not included.

Table 12: Distribution of Protocol Deviations by Category, Type, Cohort and Treatment Group – Safety Population

Deviation	Cohort 1		Cohort 2		Cohort 3		Cohort 4		Total (N=)
	nOPV1 (N=)	mOPV1 (N=)	nOPV1 (N=)	mOPV1 (N=)	nOPV3 (N=)	mOPV3 (N=)	nOPV3 (N=)	mOPV3 (N=)	
	n (%) m	n (%) m	n (%) m	n (%) m	n (%) m	n (%) m	n (%) m	n (%) m	n (%) m
Category #1									
Any Deviation	xx (xx x) y								
Deviation #1	xx (xx x) y								
Deviation #2	xx (xx x) y								
Etc.	xx (xx x) y								
Category #2									
Any Deviation	xx (xx x) y								
Deviation #1	xx (xx x) y								
Deviation #2	xx (xx x) y								
Etc.	xx (xx x) y								
Etc.									
N = Number of participants randomized and vaccinated. n (%) = Number of participants (percent of N). m = total number of deviations.									

Note: Repeat this table for all major protocol deviations.

Note: Possible deviation categories and deviations (for information only):

Deviation category:
- ☐ Eligibility/enrollment
- ☐ Protocol procedure/assessment
- ☐ Treatment administration schedule
- ☐ Treatment administration
- ☐ Follow-up visit schedule
- ☐ Blinding policy/procedure

Protocol deviation:

- ☐ Out of window visit*
- ☐ Missed visit/visit not conducted*
- ☐ Did not meet inclusion criterion[1]
- ☐ Met exclusion criterion[2]
- ☐ Incorrect version of ICF signed
- ☐ ICF not signed prior to study procedures
- ☐ Missed vaccination*
- ☐ Delayed vaccination*
- ☐ Blood not collected*
- ☐ Urine pregnancy test not performed*
- ☐ Stool not collected*
- ☐ Too few aliquots obtained[3,4,*]
- ☐ Specimen result not obtained[3,5,*]
- ☐ Required procedure not conducted[6,*]
- ☐ Required procedure done incorrectly[6,*]
- ☐ Study product temperature excursion[6]
- ☐ Treatment unblinded[6]
- ☐ Specimen temperature excursion[3, 6, *]
- ☐ Other

Table 13: Summary of Demographics and Baseline Characteristics by Cohort and Group - Safety Population

Characteristic	Cohort 1		Cohort 2		Cohort 3		Cohort 4	
	nOPV1 (N=)	mOPV1 (N=)	nOPV1 (N=)	mOPV1 (N=)	nOPV3 (N=)	mOPV3 (N=)	nOPV3 (N=)	mOPV3 (N=)
	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)
Sex								
Female								
Male								
Ethnicity								
Not Hispanic or Latino								
Hispanic or Latino								
Not Reported								
Unknown								
Race								
American Indian or Alaska Native								
Asian								
Native Hawaiian or Other Pacific Islander								
Black or African American								
White								
Multi-Racial								
Not Reported								
Age (years)								
Mean (SD)								
Median								
Min – Max								

Characteristic	Cohort 1		Cohort 2		Cohort 3		Cohort 4	
	nOPV1 (N=)	mOPV1 (N=)	nOPV1 (N=)	mOPV1 (N=)	nOPV3 (N=)	mOPV3 (N=)	nOPV3 (N=)	mOPV3 (N=)
	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)
Height (cm)								
Mean (SD)								
Median								
Min – Max								
Weight (kg)								
Mean (SD)								
Median								
Min – Max								

N = Number of randomized and vaccinated participants.
n (%) = Number of participants (percent of N).

Tables with similar formats:

Table 14: Summary of Demographics and Baseline Characteristics by Cohort and Group – Per-Protocol Population

Table 15: Summary of Demographics and Baseline Characteristics by Site, Cohort and Group - Safety Population,

		Cohort 1		Cohort 2		Cohort 3		Cohort 4	
	Characteristic	**nOPV1 n (%) m**	**mOPV1 n (%) m**	**nOPV1 n (%) m**	**mOPV1 n (%) m**	**nOPV3 n (%) m**	**mOPV3 n (%) m**	**nOPV3 n (%) m**	**mOPV3 n (%) m**
UVM		**N=**	**N=**	**N=**	**N=**	**N=**	**N=**	**N=**	**N=**
Sex	Female								
	Male								
Ethnicity	Not Hispanic or Latino								
	Hispanic or Latino								
Race	Asian								
	Black or African American								
	White								
	Multi-Racial								
Age (years)	Mean (SD)								
	Median								
	Min - Max								
Height (cm)	Mean (SD)								
	Median								
	Min - Max								
Weight (kg)	Mean (SD)								
	Median								
	Min - Max								
Repeat for:									
PHR		**N=**	**N=**	**N=**	**N=**	**N=**	**N=**	**N=**	**N=**
UNC		**N=**	**N=**	**N=**	**N=**	**N=**	**N=**	**N=**	**N=**
DHMC		**N=**	**N=**	**N=**	**N=**	**N=**	**N=**	**N=**	**N=**

N = Number of randomized and vaccinated participants. n (%) = Number of participants (percent of N).

Similar to Table 15:

Table 16: Summary of Demographics and Baseline Characteristics by Site, Cohort and Group - Per-Protocol Population

Table 17: Summary of Medical History, by MedDRA® Preferred Term and Group – All Randomized Participants

MedDRA Preferred Term	Cohort 1		Cohort 2		Cohort 3		Cohort 4		Total (N=)
	nOPV1 (N=)	mOPV1 (N=)	nOPV1 (N=)	mOPV1 (N=)	nOPV3 (N=)	mOPV3 (N=)	nOPV3 (N=)	mOPV3 (N=)	
	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	N (%)
Any Medical condition									
[PT 1]									
[PT 2]									
[PT 3]									
[etc]									

N= Number of Participants randomized to a treatment group. n (%) = Number of participants (percent of N).
Includes all medications administered on or prior to study dose 1.
A participant is only counted once per preferred term.

Table 18: Prior COVID vaccinations, by Site, Cohort - Safety Population

	Participants Who Received Prior IPV			Participants Who Received Prior OPV			Total
	Cohort 1	Cohort 3	Total	Cohort 2	Cohort 4	Total	
All Participants	N=	N=	N=	N=	N=	N=	N=
Vaccinated: n (%)	x (xx.x)	x (xx x)	x (xx x)	x (xx x)	x (xx.x)	x (xx x)	x (xx x)
Received 2nd vaccination: n (%)							
Received a 3rd vaccination: n (%)							
Received a 4th vaccination: n (%)							
Time (days) since last vaccination							
Mean (SD)	xx x (xx xx)						
Median	xx x						
Range	xx, xx						
Repeat for:							
UVM	N=	N=	N=	N=	N=	N=	N=
DHMC	N=	N=	N=	N=	N=	N=	N=
UNC	N=	N=	N=	N=	N=	N=	N=
PHR	N=	N=	N=	N=	N=	N=	N=

N=Number of participants in the safety population. n (%) = Number of participants (percent of N). SD = Standard deviation. All data are based on COVID vaccinations taken prior to study dose #1.

[a] Days from last COVID vaccination administered prior to study dose 1.

Table 19: Summary of Concomitant Medications, by Cohort - Safety Population

	nOPV1			mOPV1			nOPV3			mOPV3		
	Cohort 1 (N=)	Cohort 2 (N=)	Total (N=)	Cohort 1 (N=)	Cohort 2 (N=)	Total (N=)	Cohort 3 (N=)	Cohort 4 (N=)	Total (N=)	Cohort 3 (N=)	Cohort 4 (N=)	Total (N=)
MedDRA Preferred Term	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)
[Any Level 1 code]												
[Any Level 2 code]												
[First Level 1 code]												
[Any Level 2 code]												
[First Level 2 code]												
[Etc.]												
[Second Level 1 code]												
[Any Level 2 code]												
[First Level 2 code]												
[Etc.]												
[Etc.]												

N=Number of participants in the safety population. n (%) = Number of participants (percent of N).

Includes medications continuing on the day of dose 1 or prescribed after dose 1. A participant is only counted once per medication.

Events are sorted by descending overall frequency.

A. SAFETY

Table 20: Summary of AEs, Cohort 1, Participants with an Exclusive IPV Prior Vaccination History – Safety and Reactogenicity Populations

	nOPV1		mOPV1	
	n (%) m	**95% CI**	**n (%) m**	**95% CI**
Male and Female Participants				
Number of participants in the safety population	N=		N=	
Any SAE throughout the study	xx (xx.x) xx	xx.x, xx.x		
Any non-serious AE [a]				
Any AE leading to withdrawal from the study [a]				
Severe unsolicited AE within 28 days				
Any unsolicited AE within 28 days				
Any unsolicited AE related to IP within 28 days				
Number of participants in the reactogenicity population	N=		N=	
Any solicited AE				
Repeat for:				
Male Participants				
Female Participants				

N = Number of participants in the safety/reactogenicity population, used as denominator in subsequent rows.

n = number of participants with an event. m = total number of events.

Solicited AEs are collected on the day of vaccination (day 1) and on diary cards over the next 6 days.

Unsolicited and solicited events are only counted once per participant, SOC and PT for each time period.

[a] Includes solicited and unsolicited AEs.

Table 21: Summary of AEs, Cohort 2, Participants with an OPV- Containing Prior Vaccination History – Safety and Reactogenicity Populations

		nOPV1		mOPV1	
		n (%) m	95% CI	n (%) m	95% CI
All Participants					
Events Post-Dose 1 and Prior to Dose 2	Number in safety population receiving 1st dose	N=		N=	
	Any SAE (excluding post-dose 2 SAEs)	xx (xx.x) xx	xx.x, xx.x		
	Any non-serious AE [a]				
	Any AE leading to withdrawal from the study [a]				
	Any AE leading to discontinuation of vaccinations [a]				
	Severe unsolicited AE within 28 days				
	Any unsolicited AE within 28 days				
	Any unsolicited AE related to IP within 28 days				
	Number in reactogenicity population receiving 1st dose	N=		N=	
	Any solicited AE				
Events Post-Dose 2	Number in safety population receiving 2nd dose	N=		N=	
	Any SAE at any time post-dose 2	xx (xx.x) xx	xx.x, xx.x		
	Any non-serious AE [a]				
	Any AE leading to withdrawal from the study [a]				
	Severe unsolicited AE within 28 days				
	Any unsolicited AE within 28 days				
	Any unsolicited AE related to IP within 28 days				
	Number in reactogenicity population receiving 2nd dose	N=		N=	
	Any solicited AE				
Events Post-Any Dose	Number in safety population receiving any dose	N=		N=	

		nOPV1		mOPV1	
	Any SAE at any time post-dose 2	xx (xx.x) xx	xx.x, xx.x		
	Any non-serious AE [a]				
	Any AE leading to withdrawal from the study [a]				
	Severe unsolicited AE within 28 days				
	Any unsolicited AE within 28 days				
	Any unsolicited AE related to IP within 28 days				
	Number in reactogenicity population receiving any dose	**N=**		**N=**	
	Any solicited AE				
Repeat for:					
Male Participants					
Female Participants					

N = Number of participants in the safety/reactogenicity population, used as denominator in subsequent rows.

n = number of participants with an event. m = total number of events.

Solicited AEs are collected on the day of vaccination (day 1) and on diary cards over the next 6 days.

Unsolicited and solicited events are only counted once per participant, SOC and PT for each time period.

[a] Includes solicited and unsolicited AEs.

Same format as Table 20, replace OPV1 with OPV3

Table 22: Summary of AEs, Cohort 3, Participants with an Exclusive IPV Prior Vaccination History – Safety and Reactogenicity Populations

Same format as Table 21, replace OPV1 with OPV3

Table 23: Summary of AEs, Cohort 4, Participants with an OPV- Containing Prior Vaccination History – Safety and Reactogenicity Populations

Table 24: Summary of AEs by Study Vaccine, Cohorts 1 and 2 – Safety and Reactogenicity Populations

		nOPV1		mOPV1	
		n (%) m	**95% CI**	**n (%) m**	**95% CI**
All participants					
Events Post-Dose 1 and Prior to Dose 2	Number of participants in safety population	**N=**		**N=**	
	Any SAE (excluding post-dose 2 SAEs)	xx (xx.x) xx	xx.x, xx.x		
	Any non-serious AE [a]				
	Any AE leading to withdrawal from the study [a]				
	Any AE leading to discontinuation of vaccination [a]				
	Severe unsolicited AE within 28 days				
	Any unsolicited AE within 28 days				
	Any unsolicited AE related to IP within 28 days				
	Number of participants in reactogenicity population	**N=**		**N=**	
	Any solicited AE				
Events Post-Any Dose	Number of participants in safety population	**N=**		**N=**	
	Any SAE throughout the study	xx (xx.x) xx	xx.x, xx.x		
	Any non-serious AE [a]				
	Any AE leading to withdrawal from the study [a]				
	Severe unsolicited AE within 28 days				
	Any unsolicited AE within 28 days				
	Any unsolicited AE related to IP within 28 days				
	Number of participants in reactogenicity population	**N=**		**N=**	
	Any solicited AE				
Repeat for:					
Male participants					

	nOPV1	mOPV1
Female participants		
N = Number of participants in the safety/reactogenicity population, used as denominator in subsequent rows. n = number of participants with an event. m = total number of events. Solicited AEs are collected on the day of vaccination (day 1) and on diary cards over the next 6 days. Unsolicited and solicited events are only counted once per participant, SOC and PT for each time period. [a] Includes solicited and unsolicited AEs.		

Same format as Table 24, replace OPV1 with OPV3

Table 25: Summary of AEs by Study Vaccine, Cohorts 3 and 4 – Safety and Reactogenicity Populations

Table 26: Summary of Solicited AEs, by Cohort, Dose and Vaccine Group - Reactogenicity Population

Reaction	Vaccine	N	n (%)	95% CI for the %	P-Value
Cohort 1					
Any solicited Event	nOPV1				
	mOPV1				
Fever					
Chills					
Fatigue					
Headache					
Muscle aches/Myalgias					
Joint aches/Arthralgias					
Nausea					
Vomiting					
Abdominal pain					
Diarrhea					

Reaction	Vaccine	N	n (%)	95% CI for the %	P-Value
Repeat for:					
Cohort 2: Post-Dose 1					
Cohort 2: Post-Dose 2					
Cohort 2: Post-Any Dose					
Cohort 3					
As above	nOPV3				
	mOPV3				
Cohort 4: Post-Dose 1					
Cohort 4: Post-Dose 2					
Cohort 4: Post-Any Dose					
Cohorts 1 + 2: Post-Any Dose					
As above	nOPV1				
	mOPV1				
Cohorts 3 + 4: Post-Any Dose					
As above	nOPV3				
	mOPV3				

N= Number of Participants in the reactogenicity population who received the specified dose. n = number of participants with at least one event.
CI = Exact 2-sided Clopper-Pearson confidence interval.
P-value = Fisher's Exact 2-tail test of a difference between nOPV and mOPV treatment groups in proportion of participants with an event.

Table 27: Summary of Severe and of Moderate or Greater Solicited AEs, by Cohort, Dose and Vaccine Group - Reactogenicity Population

Reaction	Severity	Vaccine	N	n (%)	95% CI for the %	P-Value
Cohort 1						
Any solicited Event	Severe	nOPV1				
		mOPV1				
	Moderate or Severe	nOPV1				
		mOPV1				
Repeat for:						
Fever						
Chills						
Fatigue						
Headache						
Muscle aches/Myalgias						
Joint aches/Arthralgias						
Nausea						
Vomiting						
Abdominal pain						
Diarrhea						
Repeat for:						
Cohort 2: Post-Dose 1						
Cohort 2: Post-Dose 2						
Cohort 2: Post-Any Dose						
Cohort 3						
As above	Severe	nOPV3				

Reaction	Severity	Vaccine	N	n (%)	95% CI for the %	P-Value
		mOPV3				
	Moderate or Severe	nOPV3				
		mOPV3				
Cohort 4: Post-Dose 1						
Cohort 4: Post-Dose 2						
Cohort 4: Post-Any Dose						
Cohort 1 + 2: Post-Any Dose						
As above	Severe	nOPV1				
		mOPV1				
	Moderate or Severe	nOPV1				
		mOPV1				
Cohort 3 + 4: Post-Any Dose						
As above	Severe	nOPV3				
		mOPV3				
	Moderate or Severe	nOPV3				
		mOPV3				

N= Number of Participants in the reactogenicity population who received the specified dose. n = number of participants with at least one event.
CI = Exact 2-sided Clopper-Pearson confidence interval.
P-value = Fisher's Exact 2-tail test of a difference between nOPV and mOPV treatment groups in proportion of participants with an event.

Table 28: Summary of Solicited AEs, by Cohort, Dose, Severity and Vaccine Group - Reactogenicity Population

Reaction	Vaccine	Participants	Severe	Moderate	Mild	None
		N	n (%)	n (%)	n (%)	n (%)
Cohort 1						
Any solicited Event	nOPV1	xx	xx (xx.x)	xx (xx.x)	xx (xx.x)	xx (xx.x)
	mOPV1	xx	xx (xx.x)	xx (xx.x)	xx (xx.x)	xx (xx.x)
Repeat for:						
Fever						
Chills						
Fatigue						
Headache						
Muscle aches/Myalgias						
Joint aches/Arthralgias						
Nausea						
Vomiting						
Abdominal pain						
Diarrhea						
Cohort 2: Post-Dose 1						
Cohort 2: Post-Dose 2						
Cohort 2: Post-Any Dose						
Cohort 3						
As above	nOPV3	xx	xx (xx.x)	xx (xx.x)	xx (xx.x)	xx (xx.x)
	mOPV3	xx	xx (xx.x)	xx (xx.x)	xx (xx.x)	xx (xx.x)
Cohort 4: Post-Dose 1						

Reaction	Vaccine	Participants	Severe	Moderate	Mild	None
		N	n (%)	n (%)	n (%)	n (%)
Cohort 4: Post-Dose 2						
Cohort 4: Post-Any Dose						
Cohort 1 + 2: Post-Any Dose						
As above	nOPV1	xx	xx (xx.x)	xx (xx.x)	xx (xx.x)	xx (xx.x)
	mOPV2	xx	xx (xx.x)	xx (xx.x)	xx (xx.x)	xx (xx.x)
Cohort 3 + 4: Post-Any Dose						
As above	nOPV3	xx	xx (xx.x)	xx (xx.x)	xx (xx.x)	xx (xx.x)
	mOPV3	xx	xx (xx.x)	xx (xx.x)	xx (xx.x)	xx (xx.x)

N= Number of Participants in the reactogenicity population who received the specified dose. n = number of participants with at least one event.

Cells display number (%) of participants with at least one event at the specified severity. The maximum severity reported is used for summaries across events (Any Solicited Event).

Table 29: Summary of Solicited AEs, by Severity and Day-Post Vaccination, Cohort 1 - Reactogenicity Population

Study Day	nOPV1 (N=)				mOPV1 (N=)			
	Severe	Moderate	Mild	None	Severe	Moderate	Mild	None
	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)
Any Solicited Event								
Day 1								
Day 2								
Day 3								
Day 4								
Day 5								
Day 6								
Day 7								
Post-Day 7								
Repeat for:								
Fever								
Chills								
Fatigue								
Headache								
Muscle aches/Myalgias								
Joint aches/Arthralgias								
Nausea								
Vomiting								
Abdominal pain								
Diarrhea								

N= Number of Participants in the reactogenicity population. n (%) = number of participants with at least one event (% out of N)
Results for any solicited event are based on the maximum severity over all events per participant for each study day.

Study Day	nOPV1 (N=)				mOPV1 (N=)			
	Severe	Moderate	Mild	None	Severe	Moderate	Mild	None
	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)
Results for post-day 7 are based on the maximum severity over the duration of the event(s) after day 7.								

Table 30: Summary of Solicited AEs, by Severity, Dose Number and Day-Post Vaccination, Cohort 2 - Reactogenicity Population

Dose #	Study Day	nOPV1 (N=)				mOPV1 (N=)			
		Severe	Moderate	Mild	None	Severe	Moderate	Mild	None
		n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)
Any Solicited Event									
Dose 1	**Day 1**								
	Day 2								
	Day 3								
	Day 4								
	Day 5								
	Day 6								
	Day 7								
	Post-Day 7								
Dose 2	**Day 1**								
	Day 2								
	Day 3								
	Day 4								
	Day 5								
	Day 6								
	Day 7								
	Post-Day 7								
Repeat for:									
Fever									
Chills									

Dose #	Study Day	nOPV1 (N=)				mOPV1 (N=)			
		Severe	Moderate	Mild	None	Severe	Moderate	Mild	None
		n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)
Fatigue									
Headache									
Muscle aches/Myalgias									
Joint aches/Arthralgias									
Nausea									
Vomiting									
Abdominal pain									
Diarrhea									
N= Number of Participants in the reactogenicity population. n (%) = number of participants with at least one event (% out of N) Results for any solicited event are based on the maximum severity over all events per participant. Results for post-day 7 are based on the maximum severity over the duration of the event(s) after day 7.									

Same format as Table 29 (Replace nOPV1 and mOPV1 with nOPV3 and mOPV3)

Table 31: Summary of Solicited AEs, by Severity and Day-Post Vaccination, Cohort 3 - Reactogenicity Population

Same format as Table 30 (Replace nOPV1 and mOPV1 with nOPV3 and mOPV3)

Table 32: Summary of Solicited AEs, by Severity, Dose Number and Day-Post Vaccination, Cohort 4 - Reactogenicity Population

Same format as Table 29 (include post-dose 1 results from cohorts 1 and 2 combined)

Table 33: Summary of Solicited AEs, by Severity and Day-Post Vaccination Number 1, Cohorts 1 and 2 - Reactogenicity Population

Same format as Table 30 (include post-dose 1 results from cohorts 1 and 2 combined)

Table 34: Summary of Solicited AEs, by Severity and Day-Post Vaccination Number 1, Cohorts 3 and 4 - Reactogenicity Population

Table 35: Frequency and Duration (days) of Solicited AEs Ongoing 7 Days Post-Study Vaccine Administration, by Cohort, Dose and Vaccine Group in Participants with a Prior IPV Vaccination History - Reactogenicity Population

Reaction	Vaccine	Number of Participants N	Number with an event n (%)	Mean (SD) Duration	Median Duration	Min, Max
Cohort 1						
Any solicited Event	nOPV1	xx	xx (xx.x)	xx,x (xx.xx)	xx.x	xx, xx
	mOPV1	xx	xx (xx.x)	xx.x (xx.xx)	xx.x	xx, xx
Repeat for:						
Fever						
Chills						
Fatigue						
Headache						
Muscle aches/Myalgias						
Joint aches/Arthralgias						
Nausea						
Vomiting						
Abdominal pain						
Diarrhea						
Cohort 2: Post-Dose 1						
Cohort 2: Post-Dose 2						
Cohort 2: Post-Any Dose						
Cohort 3						
As above	nOPV3	xx	xx (xx.x)	xx (xx.x)	xx (xx.x)	xx (xx.x)
	mOPV3	xx	xx (xx.x)	xx (xx.x)	xx (xx.x)	xx (xx.x)
Cohort 4: Post-Dose 1						

Reaction	Vaccine	Number of Participants N	Number with an event n (%)	Mean (SD) Duration	Median Duration	Min, Max
Cohort 4: Post-Dose 2						
Cohort 4: Post-Any Dose						
Cohort 1 + 2: Post-Any Dose						
As above	nOPV1	xx	xx (xx.x)	xx (xx.x)	xx (xx.x)	xx (xx.x)
	mOPV2	xx	xx (xx.x)	xx (xx.x)	xx (xx.x)	xx (xx.x)
Cohort 3 + 4: Post-Any Dose						
As above	nOPV3	xx	xx (xx.x)	xx (xx.x)	xx (xx.x)	xx (xx.x)
	mOPV3	xx	xx (xx.x)	xx (xx.x)	xx (xx.x)	xx (xx.x)

N= Number of Participants in the reactogenicity population. n (%) = number of participants with at least one event (% out of N).
For Any Solicited Event, participants are counted once using the maximum duration of all pertinent events.
Only includes events that were ongoing on study day 8 (7 days post-dose 1) or study day 36 (7 days post-dose 2).

Tables with same format as Tables 20 through 35:

Safety Population, by site – Tables 36 through 51

Programming notes for site-specific tables.
No p-values will be presented.

Table 52: Severity of Unsolicited Adverse Events Within 28 Days of Any Vaccine Dose, by Vaccine Group - Safety Population

Severity	Statistic	Cohort 1		Cohort 2		Cohort 3		Cohort 4	
		nOPV1 (N = X)	mOPV1 (N = X)	nOPV1 (N = X)	mOPV1 (N = X)	nOPV3 (N = X)	mOPV3 (N = X)	nOPV3 (N = X)	mOPV3 (N = X)
Any Severity	n (m)	xx (xx)	xx (xx)						
	%	xx (x.x)	xx (x.x)						
	95% CI	xx.x, xx.x	xx.x, xx.x						
Fatal	n (m)								
	%								
	95% CI								
Potentially Life-Threatening	n (m)								
	%								
	95% CI								
Severe	n (m)								
	%								
	95% CI								
Moderate	n (m)								
	%								
	95% CI								
Mild	n (m)								
	%								
	95% CI								

N = Number of Participants in the safety population.

n (m) = number of participants (number of AEs) with at least one event.

CI = Exact 2-sided Clopper-Pearson confidence interval for percent of participants with an AE

Severity	Statistic	Cohort 1		Cohort 2		Cohort 3		Cohort 4	
		nOPV1 (N = X)	mOPV1 (N = X)	nOPV1 (N = X)	mOPV1 (N = X)	nOPV3 (N = X)	mOPV3 (N = X)	nOPV3 (N = X)	mOPV3 (N = X)
SAEs are reported as unsolicited AEs irrespective of onset date. Participants are counted only once, based on maximum reported severity over all events.									

Table 53: Severity of Unsolicited Adverse Events Within 28 Days of Any Vaccine Dose, by Study Vaccination - Safety Population

Severity	Statistic	nOPV1 (N=)	mOPV1 (N=)	nOPV3 (N=)	mOPV3 (N=)
Any Severity	n (m)	xx (xx)	xx (xx)	xx (xx)	xx (xx)
	%	xx (x.x)	xx (x.x)	xx (x.x)	xx (x.x)
	95% CI	xx.x, xx.x	xx.x, xx.x	xx.x, xx.x	xx.x, xx.x
Fatal	n (m)				
	%				
	95% CI				
Potentially Life-Threatening	n (m)				
	%				
	95% CI				
Severe	n (m)				
	%				
	95% CI				
Moderate	n (m)				
	%				
	95% CI				
Mild	n (m)				
	%				
	95% CI				

N= Number of Participants in the safety population.
n (m) = number of participants (number of AEs) with at least one event.
CI = Exact 2-sided Clopper-Pearson confidence interval for percent of participants with an AE
SAEs are reported as unsolicited AEs irrespective of onset date.
Participants are counted only once, based on maximum reported severity over all events.

Same as tables 52 and 53:

Table 54: Severity of Unsolicited Adverse Events Within 28 Days of Any Vaccine Dose and Related to Study Product, by Vaccine Group - Safety Population

Table 55: Severity of Unsolicited Adverse Events Within 28 Days of Any Vaccine Dose and Related to Study Product, by Study Vaccination - Safety Population

Table 56: Serious Adverse Events Summarized by Reason for Seriousness Designation and Vaccine Group - Safety Population

Reason for Seriousness Designation	Cohort 1		Cohort 2		Cohort 3		Cohort 4	
	nOPV1 (N = X)	mOPV1 (N = X)	nOPV1 (N = X)	mOPV1 (N = X)	nOPV3 (N = X)	mOPV3 (N = X)	nOPV3 (N = X)	mOPV3 (N = X)
	n (%) m	n (%) m	n (%) m	n (%) m	n (%) m	n (%) m	n (%) m	n (%) m
Any SAE								
Any Reason	xx (xx.x) y							
Fatal	xx (xx.x)							
Potentially Life-Threatening	xx (xx.x) y							
Hospitalization	xx (xx.x) y							
Affects Normal Life Functions	xx (xx.x) y							
Congenital Anomaly or Birth Defect	xx (xx.x) y							
Important Medical Event	xx (xx.x) y							
Any SAE Related to Study Product								
Any Reason								
Fatal								
Potentially Life-Threatening								
Hospitalization								
Affects Normal Life Functions								
Congenital Anomaly or Birth Defect								
Important Medical Event								

N = Number of Participants in the safety population.
n (%) = number of participants with at least one event (and % of N).
m = Number of events.
SAEs are reported as unsolicited AEs irrespective of onset date.
Note: More than one reason for seriousness may be selected per SAE.

Table 57: Serious Adverse Events Summarized by Reason for Seriousness Designation and Study Vaccination - Safety Population

Reason for Seriousness Designation	nOPV1 (N=)	mOPV1 (N=)	nOPV3 (N=)	mOPV3 (N=)
	n (%) m	n (%) m	n (%) m	n (%) m
Any SAE				
Any Reason	xx (xx.x) y			
Fatal	xx (xx.x)			
Potentially Life-Threatening	xx (xx.x) y			
Hospitalization	xx (xx.x) y			
Affects Normal Life Functions	xx (xx.x) y			
Congenital Anomaly or Birth Defect	xx (xx.x) y			
Important Medical Event	xx (xx.x) y			
Any SAE Related to Study Product				
Any Reason				
Fatal				
Potentially Life-Threatening				
Hospitalization				
Affects Normal Life Functions				
Congenital Anomaly or Birth Defect				
Important Medical Event				

N = Number of Participants in the safety population.
n (%) = number of participants with at least one event (and % of N).
m = Number of events.
SAEs are reported as unsolicited AEs irrespective of onset date.
Note: More than one reason for seriousness may be selected per SAE.

Table 58: Unsolicited Adverse Events Within 28 Days of Any Vaccine Dose, by MedDRA System Organ Class (SOC), Preferred Term (PT) and Vaccine Group – Safety Population

MedDRA SOC and PT	Cohort 1		Cohort 2		Cohort 3		Cohort 4	
	nOPV1 (N = X)	mOPV1 (N = X)	nOPV1 (N = X)	mOPV1 (N = X)	nOPV3 (N = X)	mOPV3 (N = X)	nOPV3 (N = X)	mOPV3 (N = X)
	n (%) m	n (%) m	n (%) m	n (%) m	n (%) m	n (%) m	n (%) m	n (%) m
Any SOC								
Any PT	xx (xx.x) y							
[SOC 1]								
Any PT	xx (xx.x) y							
[PT 1]	xx (xx.x)							
[PT 2]	xx (xx.x)							
Etc.	xx (xx.x)							
[SOC 2]								
Etc.								

N= Number of Participants in the safety population.
n = number of participants with at least one event.
m = number of AEs reported.
SAEs are reported as unsolicited AEs irrespective of onset date.

Table 59: Unsolicited Adverse Events Within 28 Days of Any Vaccine Dose, by MedDRA System Organ Class (SOC), Preferred Term (PT) and Study Vaccination – Safety Population

MedDRA SOC and PT	nOPV1 (N=)	mOPV1 (N=)	nOPV3 (N=)	mOPV3 (N=)
	n (%) m	n (%) m	n (%) m	n (%) m
Any SOC				
Any PT	xx (xx.x) y			
[SOC 1]				
Any PT	xx (xx.x) y			
[PT 1]	xx (xx.x)			
[PT 2]	xx (xx.x)			
Etc.	xx (xx.x)			
[SOC 2]				
Etc.				

N= Number of Participants in the safety population.
n = number of participants with at least one event.
m = number of AEs reported.
SAEs are reported as unsolicited AEs irrespective of onset date.

Programming notes. Order the results by descending overall proportion of participants with any event: by SOC and PT within SOC. Include all SAEs that occur throughout the study.

Tables with similar format as tables 58 and 59, but including solicited AEs and excluding SAEs:

Table 60: Solicited and Non-serious Unsolicited Adverse Events Within 28 Days of Any Vaccine Dose, by MedDRA System Organ Class (SOC), Preferred Term (PT) and Vaccine Group – Safety Population

Table 61: Solicited and Non-serious Unsolicited Adverse Events Within 28 Days of Any Vaccine Dose, by MedDRA System Organ Class (SOC), Preferred Term (PT) and Study Vaccination – Safety Population

Tables with similar format as tables 58 and 59 (i.e., including SAEs):

Table 62: Unsolicited Adverse Events Within 28 Days of Any Vaccine Dose and Related to Study Product, by MedDRA System Organ Class (SOC), Preferred Term (PT) and Study Vaccination – Safety Population

Table 63: Severe or Greater Unsolicited Adverse Events Within 28 Days of Any Vaccine Dose, by MedDRA System Organ Class (SOC), Preferred Term (PT) and Vaccine Group – Safety Population

Table 64: Severe or Greater Unsolicited Adverse Events Within 28 Days of Any Vaccine Dose, by MedDRA System Organ Class (SOC), Preferred Term (PT) and Study Vaccination – Safety Population

Table 65: Severe or Greater Unsolicited Adverse Events Within 28 Days of Any Vaccine Dose and Related to Study Product, by MedDRA System Organ Class (SOC), Preferred Term (PT) and Vaccine Group – Safety Population

Table 66: Severe or Greater Unsolicited Adverse Events Within 28 Days of Any Vaccine Dose and Related to Study Product, by MedDRA System Organ Class (SOC), Preferred Term (PT) and Study Vaccination – Safety Population

Table 67: Serious Adverse Events at Any Time During the Study, by MedDRA System Organ Class (SOC), Preferred Term (PT) and Vaccine Group – Safety Population

Table 68: Serious Adverse Events at Any Time During the Study, by MedDRA System Organ Class (SOC), Preferred Term (PT) and Study Vaccination – Safety Population

Table 69: Unsolicited Adverse Events Occurring in at Least 2% of Participants Within 28 Days of Any Vaccine Dose, by MedDRA Preferred Term and Vaccine Group - Safety Population

MedDRA Preferred Term	Cohort 1		Cohort 2		Cohort 3		Cohort 4	
	nOPV1 (N = X)	mOPV1 (N = X)	nOPV1 (N = X)	mOPV1 (N = X)	nOPV3 (N = X)	mOPV3 (N = X)	nOPV3 (N = X)	mOPV3 (N = X)
	n (%) m	n (%) m	n (%) m	n (%) m	n (%) m	n (%) m	n (%) m	n (%) m
PT #1								
PT #2								
Etc.								

N= Number of Participants in the safety population.

n = number of participants with at least one event.

m = number of AEs reported.

SAEs are reported as unsolicited AEs irrespective of onset date.

Includes all MedDRA preferred terms occurring in 2% or more participants who received the same study product.

Table 70: Unsolicited Adverse Events Occurring in at Least 2% of Participants Within 28 Days of Any Vaccine Dose, by MedDRA Preferred Term and Study Vaccination - Safety Population

MedDRA Preferred Term	nOPV1 (N=)	mOPV1 (N=)	nOPV3 (N=)	mOPV3 (N=)
	n (%) m	n (%) m	n (%) m	n (%) m
PT #1				
PT #2				
Etc.				

N= Number of Participants in the safety population.
n = number of participants with at least one event.
m = number of AEs reported.
SAEs are reported as unsolicited AEs irrespective of onset date.
Includes all MedDRA preferred terms occurring in 2% or more participants who received the same study product.

Tables with similar format, but excluding 'm':

Table 71: Unsolicited Adverse Events Leading to Discontinuation of Vaccinations, by MedDRA Preferred Term and Vaccine Group - Safety Population

Table 72: Unsolicited Adverse Events Leading to Study Withdrawal, by MedDRA Preferred Term and Vaccine Group - Safety Population

Table 73: Unsolicited Adverse Events Leading to Study Withdrawal, by MedDRA Preferred Term and Study Vaccination - Safety Population

Footnotes for Tables 71 - 73: Exclude "m = number of AEs reported." Because a subject can be discontinued or withdrawn only once.

Programming notes

Sort the table by descending overall proportion of participants with an event (%).

Table 71 will include only participants in the 2-dose cohorts who did not receive the second dose due to an AE.

Table 74: Comparisons of the Rates of SAE, Severe AE and AE Related to Study Vaccination - Safety Population

Event	Study Vaccine	N	Event Rate			Rate Difference (nOPV – mOPV)		
			n	%	95% CI [c]	Estimate	95% CI [d]	P-Value
Cohort 1								
SAE at any time [a]	nOPV1	xx	xx	xx.x	xx.x, xx.x	xx.x	xx.x, xx.x	x.xxx
	mOPV1	xx	xx	xx.x	xx.x, xx.x			
Severe or Greater AE[b]	nOPV1							
	mOPV1							
AEs Related to Study Product[b]	nOPV1							
	mOPV1							
Repeat for:								
Cohort 2, Events post-dose 1 and prior to dose 2								
Cohort 2, Events post-dose 2								
Cohort 2, Events post-any dose								
Cohort 3								
SAE at any time [a]	nOPV3	xx	xx	xx.x	xx.x, xx.x	xx.x	xx.x, xx.x	x.xxx
	mOPV3	xx	xx	xx.x	xx.x, xx.x			
Cohort 4, Events post-dose 1 and prior to dose 2								
Cohort 4, Events post-dose 2								
Cohort 4, Events post-any dose								
Cohort 1 + 2, Events post-any dose								
SAE at any time [a]	nOPV1	xx	xx	xx.x	xx.x, xx.x	xx.x	xx.x, xx.x	x.xxx
	mOPV1	xx	xx	xx.x	xx.x, xx.x			
Cohort 3 + 4, Events post-any dose								
SAE at any time [a]	nOPV3	xx	xx	xx.x	xx.x, xx.x	xx.x	xx.x, xx.x	x.xxx
	mOPV3	xx	xx	xx.x	xx.x, xx.x			

N= Number of participants in the safety population. n = Number of participants with an event.

P-values represent Fisher's exact 2-sided test of the rate difference.

[a] SAEs are included regardless of day of onset.

[b] Events where onset was within 28 days of the specified vaccine dose(s).

[c] Exact, Clopper-Pearson 95% Confidence interval.

[d] Miettinen and Nurminen 95% confidence interval for the rate difference.

a. Clinical Labs

Table 75: Descriptive Statistics of Clinical Lab Evaluations by Vaccine Group and Time Point: Hemoglobin (g/dL) – Reactogenicity Population

Statistic	Cohort 1		Cohort 2		Cohort 3		Cohort 4	
	nOPV1 (N=)	mOPV1 (N=)	nOPV1 (N=)	mOPV1 (N=)	nOPV3 (N=)	mOPV3 (N=)	nOPV3 (N=)	mOPV3 (N=)
Screening								
n								
Mean (SD)								
Median								
Min, Max								
Pre-Dose 1								
n								
Mean (SD)								
Median								
Min, Max								
Day 8								
n								
Mean (SD)								
Median								
Min, Max								
Day 8, Change from baseline								
n								
Mean (SD)								
Median								

Statistic	Cohort 1		Cohort 2		Cohort 3		Cohort 4	
	nOPV1 (N=)	mOPV1 (N=)	nOPV1 (N=)	mOPV1 (N=)	nOPV3 (N=)	mOPV3 (N=)	nOPV3 (N=)	mOPV3 (N=)
Min, Max								

N = Number of Participants in the safety population. n = number of participants with data. SD = standard deviation.

Table 76: Descriptive Statistics of Clinical Lab Evaluations by Study Vaccination and Time Point: Hemoglobin (g/dL) – Reactogenicity Population

Statistic	nOPV1 (N=)	mOPV1 (N=)	nOPV3 (N=)	mOPV3 (N=)
Screening				
n				
Mean (SD)				
Median				
Min, Max				
Pre-Dose 1				
n				
Mean (SD)				
Median				
Min, Max				
Day 8				
n				
Mean (SD)				
Median				
Min, Max				
Day 8, Change from baseline				
n				
Mean (SD)				
Median				
Min, Max				
N = Number of Participants in the safety population. n = number of participants with data. SD = standard deviation.				

Repeat for the following:

Table 95: Severity of Clinical Laboratory Abnormalities, by Vaccine Group, Time Point and Grade, Maximum Severity Over All CBC Parameters – Reactogenicity Population

Time Point / Severity Grade	Cohort 1		Cohort 2		Cohort 3		Cohort 4	
	nOPV1 (N=)	mOPV1 (N=)	nOPV1 (N=)	mOPV1 (N=)	nOPV3 (N=)	mOPV3 (N=)	nOPV3 (N=)	mOPV3 (N=)
	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)
Screening								
Normal	xx (yy)							
Abnormal								
Grade 3								
Grade 2								
Grade 1								
Pre-Dose 1								
Normal	xx (yy)							
Abnormal								
Grade 3								
Grade 2								
Grade 1								
Day 8								
Normal	xx (yy)							
Abnormal								
Grade 3								
Grade 2								
Grade 1								
Day 8, Change from baseline								

Time Point / Severity Grade	Cohort 1		Cohort 2		Cohort 3		Cohort 4	
	nOPV1 (N=)	mOPV1 (N=)	nOPV1 (N=)	mOPV1 (N=)	nOPV3 (N=)	mOPV3 (N=)	nOPV3 (N=)	mOPV3 (N=)
	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)
Normal	xx (yy)							
Abnormal								
Grade 3								
Grade 2								
Grade 1								

N = Number of Participants in the safety population. Abnormal is defined as outside the normal range but not meeting any toxicity definition.
Each cell displays the number and percent of participants.
CBC parameters include hemoglobin, hematocrit, WBC count, neutrophil count, lymphocyte count, eosinophil count and platelet count.

Table 96: Severity of Clinical Laboratory Abnormalities, by Study Vaccination, Time Point and Grade, Maximum Severity Over All CBC Parameters – Reactogenicity Population

Time Point / Severity Grade	nOPV1 (N=)	mOPV1 (N=)	nOPV3 (N=)	mOPV3 (N=)
	n (%)	n (%)	n (%)	n (%)
Screening				
Normal	xx (yy)			
Abnormal				
Grade 3				
Grade 2				
Grade 1				
Baseline (Day 1)				
Normal	xx (yy)			
Abnormal				
Grade 3				
Grade 2				
Grade 1				
Day 8				
Normal	xx (yy)			
Abnormal				
Grade 3				
Grade 2				
Grade 1				
Maximum Post-Baseline Severity (including supplementary visits)				
Normal	xx (yy)			

Time Point / Severity Grade	nOPV1 (N=)	mOPV1 (N=)	nOPV3 (N=)	mOPV3 (N=)
	n (%)	n (%)	n (%)	n (%)
Abnormal				
Grade 3				
Grade 2				
Grade 1				

N = Number of Participants in the safety population. Abnormal is defined as outside the normal range but not meeting any toxicity definition.
Each cell displays the number and percent of participants.
CBC parameters include hemoglobin, hematocrit, WBC count, neutrophil count, lymphocyte count, eosinophil count and platelet count.

Table 97: Severity of Clinical Laboratory Abnormalities, by Vaccine Group, Time Point and Grade, Low Hemoglobin – Reactogenicity Population

Time Point / Severity Grade	Cohort 1		Cohort 2		Cohort 3		Cohort 4	
	nOPV1 (N=)	mOPV1 (N=)	nOPV1 (N=)	mOPV1 (N=)	nOPV3 (N=)	mOPV3 (N=)	nOPV3 (N=)	mOPV3 (N=)
	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)
Screening								
Normal	xx (yy)							
Abnormal								
Grade 3								
Grade 2								
Grade 1								
Repeat for:								
Baseline (Day 1)								
Day 8 [a]								
Day 8, Change from baseline [b]								
Maximum Post-Baseline Severity (including supplementary visits) [c]								

N = Number of Participants in the safety population. Abnormal is defined as outside the normal range but not meeting any toxicity definition. Each cell displays the number and percent of participants.

[a] Severity grade based on absolute criterion only.

[b] Severity grade based on relative criterion. Relative severity grade is defined as normal if the absolute value is normal regardless of change from baseline.

[c] Maximum of the absolute and relative severity grades.

Table 98: Severity of Clinical Laboratory Abnormalities, by Study Vaccination, Time Point and Grade, Low Hemoglobin – Reactogenicity Population

Time Point / Severity Grade	nOPV1 (N=)	mOPV1 (N=)	nOPV3 (N=)	mOPV3 (N=)
	n (%)	n (%)	n (%)	n (%)
Screening				
Normal	xx (yy)			
Abnormal				
Grade 3				
Grade 2				
Grade 1				
Baseline (Day 1)				
Day 8 [a]				
Day 8, Change from baseline [b]				
Maximum Post-Baseline Severity (including supplementary visits)				

N = Number of Participants in the safety population. Abnormal is defined as outside the normal range but not meeting any toxicity definition. Each cell displays the number and percent of participants.

[a] Severity grade based on absolute criterion only.

[b] Severity grade based on relative criterion. Relative severity grade is defined as normal if the absolute value is normal regardless of change from baseline.

[c] Maximum of the absolute and relative severity grades.

Repeat the above for:

Table 99: Severity of Clinical Laboratory Abnormalities, by Vaccine Group, Time Point and Grade – Reactogenicity Population – Hematocrit

Table 100: Severity of Clinical Laboratory Abnormalities, by Study Vaccination, Time Point and Grade – Reactogenicity Population – Hematocrit

Table 101: Severity of Clinical Laboratory Abnormalities, by Vaccine Group, Time Point and Grade – Reactogenicity Population – WBC Count

Table 102: Severity of Clinical Laboratory Abnormalities, by Study Vaccination, Time Point and Grade – Reactogenicity Population – WBC Count

Table 103: Severity of Clinical Laboratory Abnormalities, by Vaccine Group, Time Point and Grade – Reactogenicity Population – Low Neutrophil Count

Table 104: Severity of Clinical Laboratory Abnormalities, by Study Vaccination, Time Point and Grade – Reactogenicity Population – Low Neutrophil Count

Table 105: Severity of Clinical Laboratory Abnormalities, by Vaccine Group, Time Point and Grade – Reactogenicity Population – Low Lymphocyte Count

Table 106: Severity of Clinical Laboratory Abnormalities, by Study Vaccination, Time Point and Grade – Reactogenicity Population – Low Lymphocyte Count

Table 107: Severity of Clinical Laboratory Abnormalities, by Vaccine Group, Time Point and Grade – Reactogenicity Population – Elevated Eosinophil Count

Table 108: Severity of Clinical Laboratory Abnormalities, by Study Vaccination, Time Point and Grade – Reactogenicity Population – Elevated Eosinophil Count

Table 109: Severity of Clinical Laboratory Abnormalities, by Vaccine Group, Time Point and Grade – Reactogenicity Population – Low Platelet Count

Table 110: Severity of Clinical Laboratory Abnormalities, by Study Vaccination, Time Point and Grade – Reactogenicity Population – Low Platelet Count

Table 111: Severity of Clinical Laboratory Abnormalities, by Vaccine Group, Time Point and Grade – Reactogenicity Population – Maximum Severity Over All Serum Chemistry Parameters

Table 112: Severity of Clinical Laboratory Abnormalities, by Study Vaccination, Time Point and Grade – Reactogenicity Population – Maximum Severity Over All Serum Chemistry Parameters

Table 113: Severity of Clinical Laboratory Abnormalities, by Vaccine Group, Time Point and Grade – Reactogenicity Population – Elevated ALT

Table 114: Severity of Clinical Laboratory Abnormalities, by Study Vaccination, Time Point and Grade – Reactogenicity Population – Elevated ALT

Table 115: Severity of Clinical Laboratory Abnormalities, by Vaccine Group, Time Point and Grade – Reactogenicity Population – Elevated Total Bilirubin

Table 116: Severity of Clinical Laboratory Abnormalities, by Study Vaccination, Time Point and Grade – Reactogenicity Population – Elevated Total Bilirubin

Table 117: Severity of Clinical Laboratory Abnormalities, by Vaccine Group, Time Point and Grade – Reactogenicity Population – Elevated Creatinine

Table 118: Severity of Clinical Laboratory Abnormalities, by Study Vaccination, Time Point and Grade – Reactogenicity Population – Elevated Creatinine

Programming Note: WBC count has both low and elevated grading – including separate sets of "low" and "elevated" rows

Table 119: Clinical Laboratory Abnormalities Shift Table, by Vaccine Group and Study Vaccination, Hemoglobin – Reactogenicity Population

Study Vaccination and Severity Grade at Baseline	Severity Grade on Day 8					
	Low Grade 3	Low Grade 2	Low Grade 1	Low Abnormal	Normal	High Abnormal
Cohort 1, nOPV1 (N=)						
Low Grade 3	xx (xx.x)	xx (xx.x)	xx (xx.x)	xx (xx.x)	xx (xx.x)	xx (xx.x)
Low Grade 2						
Low Grade 1						
Low Abnormal						
Normal						
High Abnormal						
Cohort 1, mOPV1 (N=)						
Cohort 2, nOPV1 (N=)						
Cohort 2, mOPV1 (N=)						
Cohort 3, nOPV3 (N=)						
Cohort 3, mOPV3 (N=)						
Cohort 4, nOPV3 (N=)						
Cohort 4, mOPV3 (N=)						
nOPV1 (N=)						
mOPV1 (N=)						
nOPV3 (N=)						
mOPV3 (N=)						

N = Number of participants with paired measurements (i.e., data from baseline and day 8).
Cells display frequency of participants and percent out of N.
Abnormal is defined as outside the normal range but not meeting any toxicity definition.

Table 120: Clinical Laboratory Abnormalities Shift Table, by Vaccine Group and Study Vaccination, WBC Count – Reactogenicity Population

Study Vaccination and Severity Grade at Baseline	Severity Grade on Day 8								
	Low Grade 3	Low Grade 2	Low Grade 1	Low Abnormal	Normal	High Abnormal	High Grade 3	High Grade 2	High Grade 1
Cohort 1, nOPV1 (N=)									
Low Grade 3	xx (xx.x)	xx (xx.x)	xx (xx.x)	xx (xx.x)	xx (xx.x)	xx (xx.x)	xx (xx.x)	xx (xx.x)	xx (xx.x)
Low Grade 2									
Low Grade 1									
Low Abnormal									
Normal									
High Abnormal									
High Grade 3									
High Grade 2									
High Grade 1									
Cohort 1, mOPV1 (N=)									
Cohort 2, nOPV1 (N=)									
Cohort 2, mOPV1 (N=)									
Cohort 3, nOPV3 (N=)									
Cohort 3, mOPV3 (N=)									
Cohort 4, nOPV3 (N=)									
Cohort 4, mOPV3 (N=)									
nOPV1 (N=)									
mOPV1 (N=)									
nOPV3 (N=)									

Study Vaccination and Severity Grade at Baseline	Severity Grade on Day 8								
	Low Grade 3	Low Grade 2	Low Grade 1	Low Abnormal	Normal	High Abnormal	High Grade 3	High Grade 2	High Grade 1
mOPV3 (N=)									
N = Number of participants with paired measurements (i.e., data from baseline and day 8). Cells display frequency of participants and percent out of N. Abnormal is defined as outside the normal range but not meeting any toxicity definition.									

Table 121: Clinical Laboratory Abnormalities Shift Table, by Vaccine Group and Study Vaccination, Lymphocytes – Safety Population

Study Vaccination and Severity Grade at Baseline	Severity Grade on Day 8					
	Low Grade 3	Low Grade 2	Low Grade 1	Low Abnormal	Normal	High Abnormal
Cohort 1, nOPV1 (N=)						
Low Grade 3	xx (xx.x)	xx (xx.x)	xx (xx.x)	xx (xx.x)	xx (xx.x)	xx (xx.x)
Low Grade 2						
Low Grade 1						
Low Abnormal						
Normal						
High Abnormal						
Cohort 1, mOPV1 (N=)						
Cohort 2, nOPV1 (N=)						
Cohort 2, mOPV1 (N=)						
Cohort 3, nOPV3 (N=)						
Cohort 3, mOPV3 (N=)						
Cohort 4, nOPV3 (N=)						
Cohort 4, mOPV3 (N=)						
nOPV1 (N=)						
mOPV1 (N=)						
nOPV3 (N=)						
mOPV3 (N=)						

N = Number of participants with paired measurements (i.e., data from baseline and day 8).
Cells display frequency of participants and percent out of N.
Abnormal is defined as outside the normal range but not meeting any toxicity definition.

Same format as for Lymphocytes:

Table 122: Clinical Laboratory Abnormalities Shift Table, by Vaccine Group and Study Vaccination, Neutrophils Reactogenicity Population –

Table 123: Clinical Laboratory Abnormalities Shift Table, by Vaccine Group and Study Vaccination, Platelets – Reactogenicity Population

Table 124: Clinical Laboratory Abnormalities Shift Table, by Vaccine Group and Study Vaccination, Eosinophils – Reactogenicity Population

Study Vaccine and Severity Grade at Baseline	Severity Grade on Day 8					
	High Grade 3	High Grade 2	High Grade 1	High Abnormal	Normal	Low Abnormal
Cohort 1, nOPV1 (N=)						
High Grade 3	xx (xx.x)	xx (xx.x)	xx (xx.x)	xx (xx.x)	xx (xx.x)	xx (xx.x)
High Grade 2						
High Grade 1						
High Abnormal						
Normal						
Low Abnormal						
Cohort 1, mOPV1 (N=)						
Cohort 2, nOPV1 (N=)						
Cohort 2, mOPV1 (N=)						
Cohort 3, nOPV3 (N=)						
Cohort 3, mOPV3 (N=)						
Cohort 4, nOPV3 (N=)						
Cohort 4, mOPV3 (N=)						
nOPV1 (N=)						
mOPV1 (N=)						
nOPV3 (N=)						
mOPV3 (N=)						

N = Number of participants with paired measurements (i.e., data from baseline and day 8).
Cells display frequency of participants and percent out of N.
Abnormal is defined as outside the normal range but not meeting any toxicity definition.

Same format as for Eosinophils:

Table 125: Clinical Laboratory Abnormalities Shift Table, by Vaccine Group and Study Vaccination, ALT – Reactogenicity Population

Table 126: Clinical Laboratory Abnormalities Shift Table, by Vaccine Group and Study Vaccination, Total Bilirubin – Reactogenicity Population

Table 127: Clinical Laboratory Abnormalities Shift Table, by Vaccine Group and Study Vaccination, Creatinine – Reactogenicity Population

b. Vital Signs

Table 128: Vital Signs Descriptive Statistics, by Parameter, Study Visit and Vaccine Group – Safety Population

Time Point	Statistic	Cohort 1		Cohort 2		Cohort 3		Cohort 4	
		nOPV1 (N=)	mOPV1 (N=)	nOPV1 (N=)	mOPV1 (N=)	nOPV3 (N=)	mOPV3 (N=)	nOPV3 (N=)	mOPV3 (N=)
Systolic Blood Pressure (mmHg)									
Screening	n	xx							
	Mean (SD)	xx.x (xx.x)							
	Median	xx							
	Min, Max	xx, xx							
Pre-Dose 1	n	xx							
	Mean (SD)	xx.x (xx.x)							
	Median	xx							
	Min, Max	xx, xx							
Pre-Dose 2	*as above*	xx							
Diastolic Blood Pressure (mmHg)									
Oral Temperature (ºF)									
Respiratory Rate (Breaths per min.)									
Pulse Rate (Beats per min.)									

N = Number of participants in the safety population.
n = Number of participants with data
SD = Standard deviation.

Table 129: Vital Signs Descriptive Statistics, by Parameter, Study Visit and Study Vaccination – Safety Population

Time Point	Statistic	Study Vaccine			
		nOPV1 (N=)	mOPV1 (N=)	nOPV3 (N=)	mOPV3 (N=)
Systolic Blood Pressure (mmHg)					
Screening	n	xx			
	Mean (SD)	xx.x (xx.x)			
	Median	xx			
	Min, Max	xx, xx			
Pre-Dose 1	n				
	Mean (SD)				
	Median				
	Min, Max				
Pre-Dose 2	n				
	Mean (SD)				
	Median				
	Min, Max				
Diastolic Blood Pressure (mmHg)					
Oral Temperature (°F)					
Respiratory Rate (Breaths per min.)					
Pulse Rate (Beats per min.)					

N = Number of participants in the safety population.
n = Number of participants with data
SD = Standard deviation.

Table 130: Summary of Abnormal Vital Signs, by Parameter, Study Visit, Severity and Vaccine Group – Safety Population

Time Point	Statistic	Cohort 1		Cohort 2		Cohort 3		Cohort 4	
		nOPV1 (N=)	mOPV1 (N=)	nOPV1 (N=)	mOPV1 (N=)	nOPV3 (N=)	mOPV3 (N=)	nOPV3 (N=)	mOPV3 (N=)
		n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)
Systolic Blood Pressure (mmHg)									
Screening	Any Abnormal	xx (xx.x)							
	Grade 3	xx (xx.x)							
	Grade 2	xx (xx.x)							
	Grade 1	xx (xx.x)							
Pre-Dose 1	Any Abnormal								
	Grade 3								
	Grade 2								
	Grade 1								
Pre-Dose 2	Any Abnormal								
	Grade 3								
	Grade 2								
	Grade 1								
Diastolic Blood Pressure (mmHg)									
Oral Temperature (°F)									
Respiratory Rate (Breaths per min.)									
Pulse Rate (Beats per min.)									

N = Number of participants in the safety population.
n (%) = Number of participants with data, out of N,

Table 131: Summary of Abnormal Vital Signs, by Parameter, Study Visit, Severity and Study Vaccination – Safety Population

Time Point	Severity Grade	Study Vaccine			
		nOPV1 (N=)	mOPV1 (N=)	nOPV3 (N=)	mOPV3 (N=)
		n (%)	n (%)	n (%)	n (%)
Systolic Blood Pressure (mmHg)					
Screening	Any Abnormal	xx (xx.x)			
	Grade 3	xx (xx.x)			
	Grade 2	xx (xx.x)			
	Grade 1	xx (xx.x)			
Pre-Dose 1	Any Abnormal				
	Grade 3				
	Grade 2				
	Grade 1				
Pre-Dose 2	Any Abnormal				
	Grade 3				
	Grade 2				
	Grade 1				
Diastolic Blood Pressure (mmHg)					
Diastolic Blood Pressure (mmHg)					
Oral Temperature (°F)					

N = Number of participants in the safety population.
N (%) = Number of participants with data, out of N

Note:

Systolic BP:

Normal: <140 mmHg, Grade 1: 140 to <160 mmHg, Grade 2: 160 to <180 mmHg, Grade 3: ≥ 180 mmHg

Diastolic BP:

Normal: <90 mmHg, Grade 1: 90 to <100 mmHg, Grade 2: 100 to <110 mmHg, Grade 3: ≥ 110 mmHg

Temperature:

Normal: <100.4 oF, Grade 1: 100.4 to <101.5 oF, Grade 2: 101.5 to <102.7 oF, Grade 3: ≥ 102.7 oF

Link to DAIDS Toxicity Tables
https://rsc.niaid.nih.gov/sites/default/files/daidsgradingcorrectedv21.pdf

c. Screening Physical Exam

Table 132: Frequency of Clinically Significant Physical Exam Findings by Cohort, Vaccine Group and Time Point – Safety Population

Statistic	Cohort 1		Cohort 2		Cohort 3		Cohort 4	
	nOPV1 (N=)	mOPV1 (N=)	nOPV1 (N=)	mOPV1 (N=)	nOPV3 (N=)	mOPV3 (N=)	nOPV3 (N=)	mOPV3 (N=)
	n (%) m	n (%) m	n (%) m	n (%) m	n (%) m	n (%) m	n (%) m	n (%) m
Any Time Point								
Any finding	x (x.x) x							
HEENT	x (x.x)							
Neck	x (x.x)							
Pulmonary/chest	x (x.x)							
Cardiovascular/heart	x (x.x)							
Abdomen	x (x.x)							
Musculoskeletal	x (x.x)							
Lymph nodes	x (x.x)							
Extremities	x (x.x)							
Skin	x (x.x)							
Neurological	x (x.x)							
Screening								
Repeat as above								
Continue for timepoints for which at least one clinically significant PE finding was reported.								

N=Number of participants in the safety population.
n (%) m = Number of participants with an event out of N, and total number of events (Any finding only).
Targeted PE results will be presented in Listing 17

Table 133: Frequency of Clinically Significant Physical Exam Findings by Study Vaccination and Time Point – Safety Population

Body System	nOPV1 (N=)	mOPV1 (N=)	nOPV3 (N=)	mOPV3 (N=)	Total (N=)
	n (%) m	n (%) m	n (%) m	n (%) m	n (%) m
Any Time Point					
Any	x (x.x) y				
HEENT	x (x.x)				
Neck	x (x.x)				
Pulmonary/chest	x (x.x)				
Cardiovascular/heart	x (x.x)				
Abdomen	x (x.x)				
Musculoskeletal	x (x.x)				
Lymph nodes	x (x.x)				
Extremities	x (x.x)				
Skin	x (x.x)				
Neurological	x (x.x)				
Screening					
Repeat as above					
Continue for timepoints for which at least one clinically significant PE finding was reported.					

N=Number of participants in the safety population.
n (%) = Number of participants with an event out of N.
m = Number of events.
Targeted PE results will be presented in Listing 17.

Implementation Note: Only body systems with at least one clinically significant PE finding will be displayed for each time point. During report generation, population the actual Listing number of the Targeted PE listing in the footnote.

B. IMMUNOGENICITY

Table 134: Descriptive Statistics: Types 1 to 3 Neutralizing Antibody Titers by Cohort, Time Point and Study Vaccination – Per Protocol Population

Cohort 1 - Prior IPV Participants							
Parameter	**Statistic**	**Type 1**		**Type 2**		**Type 3**	
		nOPV1	**mOPV1**	**nOPV1**	**mOPV1**	**nOPV1**	**mOPV1**
Baseline							
Descriptive Statistics [a]	N						
	Median Log_2						
	95% CI for Median						
	Min, Max						
Geometric Mean Titer [b]	GMT						
	95% CI						
Seroprotection [c] (titer ≥ 1:8)	n (%)						
	95% CI						
Repeat for:							
Day 28 Post-Dose 1							

N= Number of Participants in the Per-Protocol Population. n (%) = number (%) of positive responses.

[a] 95% CI = bootstrap confidence interval (10,000 replicates) for median

[b] GMT and 95% CI are maximum likelihood estimates incorporating left and right censoring at LLOQ and ULOQ, respectively.

[c] 95% CI computed via the Clopper-Pearson method

Cohort 2 - Prior OPV Participants							
Parameter	**Statistic**	**Type 1**		**Type 2**		**Type 3**	
		nOPV1	**mOPV1**	**nOPV1**	**mOPV1**	**nOPV1**	**mOPV1**
Baseline							
Descriptive Statistics [a]	N						
	Median Log_2						
	95% CI for Median						
	Min, Max						
Geometric Mean Titer [b]	GMT						
	95% CI						
Seroprotection [c] (titer ≥ 1:8)	n (%)						
	95% CI						
Repeat for:							
Day 28 Post-Dose 1							
Day 28 Post-Dose 2							

N= Number of Participants in the Per-Protocol Population. n (%) = number (%) of positive responses.

[a] 95% CI = bootstrap confidence interval (10,000 replicates) for median

[b] GMT and 95% CI are maximum likelihood estimates incorporating left and right censoring at LLOQ and ULOQ, respectively.

[c] 95% CI computed via the Clopper-Pearson method.

Table 134 (continued) - Cohort 3 - Prior IPV Participants

Table 134 (continued) - Cohort 4 - Prior OPV Participants

(same as Cohorts 1 & 2, but replace nOPV1 and mOPV1 with nOPV3 and mOPV3, resp.)

Same format as Table 134:

Table 135: Descriptive Statistics: Types 1 to 3 Neutralizing Antibody Titers by Cohort, Time Point and Study Vaccination – Sensitivity Analysis Per-Protocol Population

Add footnote to table 135:

Data were provided in August 2022 (Cohorts 1 and 2) and in January 2023 (Cohorts 3 and 4). Additional data from all 4 cohorts (22 samples total) were provided in March 2023 and these were excluded from the sensitivity analysis per-protocol population.

Table 136: Descriptive Statistics: Types 1 to 3 Neutralizing Antibody Titers by Cohort, Time Point and Study Vaccination – Full Analysis Population

Table 137: Descriptive Statistics: Neutralizing Antibody Titers by Time Point, Cohort and Study Vaccination – Male Participants - Per Protocol Population

Parameter	Statistic	Prior IPV Participants				Prior OPV Participants			
		nOPV1 Type 1	mOPV1 Type 1	nOPV3 Type 3	mOPV3 Type 3	nOPV1 Type 1	mOPV1 Type 1	nOPV3 Type 3	mOPV3 Type 3
Baseline									
Descriptive Statistics [a]	N								
	Median Log_2								
	95% CI for Median								
	Min, Max								
Geometric Mean Titer [b]	GMT								
	95% CI								
Seroprotection [c] (titer ≥ 1:8)	n (%)								
	95% CI								
Day 28 Post-Dose 1									
Descriptive Statistics [a]	N								
	Median Log_2								
	95% CI for Median								
	Min, Max								
Geometric Mean Titer [b]	GMT								
	95% CI								
Seroprotection [c] (titer ≥ 1:8)	n (%)								
	95% CI								
Day 28 Post-Dose 2									

Parameter	Statistic	Prior IPV Participants				Prior OPV Participants			
		nOPV1 Type 1	mOPV1 Type 1	nOPV3 Type 3	mOPV3 Type 3	nOPV1 Type 1	mOPV1 Type 1	nOPV3 Type 3	mOPV3 Type 3
Descriptive Statistics [a]	N								
	Median Log_2								
	95% CI for Median								
	Min, Max								
Geometric Mean Titer [b]	GMT								
	95% CI								
Seroprotection [c] (titer ≥ 1:8)	n (%)								
	95% CI								

N= Number of Participants in the Per-Protocol Population. n (%) = number (%) of positive responses.

[a] 95% CI = bootstrap confidence interval (10,000 replicates) for median

[b] GMT and 95% CI are maximum likelihood estimates incorporating left and right censoring at LLOQ and ULOQ, respectively.

[c] 95% CI computed via the Clopper-Pearson method.

Same format as Table 137:

Table 138: Descriptive Statistics: Neutralizing Antibody Titers by Time Point, Cohort and Study Vaccination – Female Participants in the Per Protocol Population

Table 139: Descriptive Statistics: Change from Pre-Dose in Types 1 to 3 Neutralizing Antibody Titers by Time Point, Cohort and Study Vaccination – Per Protocol Population

Cohort 1 - Prior IPV Participants							
Parameter	**Statistic**	**Type 1**		**Type 2**		**Type 3**	
		nOPV1	**mOPV1**	**nOPV1**	**mOPV1**	**nOPV1**	**mOPV1**
Change from Baseline to Day 28 Post-Dose 1							
Geometric Mean Fold-Rise [a]	N						
	GMFR						
	95% CI for GMFR						
Geometric Mean Fold-Rise Subgroup Analysis [a, b]	N						
	GMFR						
	95% CI for GMFR						
Seroconversion (≥ 4-fold rise) [c]	N						
	n (%)						
	95% CI						
Any fold-rise (increase from baseline) [c]	N						
	n (%)						
	95% CI						
≥ 2-fold rise [c]	N						
	n (%)						
	95% CI						

N= Number of Participants in the Per-Protocol Population. GMFR = Geometric mean fold-rise.

n (%) = number (%) of positive responses.

[a] GMFR and 95% CI are asymptotic estimates based on the within-participant difference in log2 titers.

[b] Subgroup analysis includes only those with baseline and post-baseline titers both >LLOQ and <ULOQ.

[c] 95% CI for the percent is the exact, Clopper-Pearson estimate.

Cohort 2 - Prior OPV Participants							
Parameter	**Statistic**	**Type 1**		**Type 2**		**Type 3**	
		nOPV1	**mOPV1**	**nOPV1**	**mOPV1**	**nOPV1**	**mOPV1**
Change from Baseline to Day 28 Post-Dose 1							
Geometric Mean Fold-Rise [a]	N						
	GMFR						
	95% CI for GMFR						
Geometric Mean Fold-Rise Subgroup Analysis [a, b]	N						
	GMFR						
	95% CI for GMFR						
Seroconversion (≥ 4-fold rise) [c]	N						
	n (%)						
	95% CI						
Any fold-rise (increase from baseline) [c]	N						
	n (%)						
	95% CI						
≥ 2-fold rise [c]	N						
	n (%)						
	95% CI						
Repeat for:							
Change from Baseline to Day 28 Post-Dose 2							
Change from Pre-Dose 2 to Day 28 Post-Dose 2							

Cohort 2 - Prior OPV Participants
N= Number of Participants in the Per-Protocol Population. GMFR = Geometric mean fold-rise.
n (%) = number (%) of positive responses.
[a] GMFR and 95% CI are asymptotic estimates based on the within-participant difference in log2 titers.
[b] Subgroup analysis includes only those with baseline and post-baseline titers both >LLOQ and <ULOQ.
[c] 95% CI for the percent is the exact, Clopper-Pearson estimate.

Table 139 (continued) - Cohort 3 - Prior IPV Participants

Table 139 (continued) - Cohort 4 - Prior IPV Participants

(same as Cohorts 1 & 2, but replace nOPV1 and mOPV1 with nOPV3 and mOPV3, resp.).

Same format as Table 139:

Table 140: Descriptive Statistics: Change from Pre-Dose in Types 1 to 3 Neutralizing Antibody Titers by Cohort, Time Point and Study Vaccination – Full Analysis Population

Table 141: Descriptive Statistics: Neutralizing Antibody Titers by Site, Time Point, Cohort and Study Vaccination, Participants Enrolled at *UVM* – Per Protocol Population

Parameter	Statistic	Prior IPV Participants				Prior OPV Participants			
		nOPV1 Type 1	mOPV1 Type 1	nOPV3 Type 3	mOPV3 Type 3	nOPV1 Type 1	mOPV1 Type 1	nOPV3 Type 3	mOPV3 Type 3
Baseline									
Descriptive Statistics [a]	N								
	Median Log_2								
	95% CI for Median								
	Min, Max								
Geometric Mean Titer [b]	GMT								
	95% CI								
Seroprotection [c] (titer ≥ 1:8)	n (%)								
	95% CI								
Day 28 Post-Dose 1									
Descriptive Statistics [a]	N								
	Median Log_2								
	95% CI for Median								
	Min, Max								
Geometric Mean Titer [b]	GMT								
	95% CI								
Seroprotection [c] (titer ≥ 1:8)	n (%)								
	95% CI								
Day 28 Post-Dose 2									

Parameter	Statistic	Prior IPV Participants				Prior OPV Participants			
		nOPV1 Type 1	mOPV1 Type 1	nOPV3 Type 3	mOPV3 Type 3	nOPV1 Type 1	mOPV1 Type 1	nOPV3 Type 3	mOPV3 Type 3
Descriptive Statistics [a]	N								
	Median Log_2								
	95% CI for Median								
	Min, Max								
Geometric Mean Titer [b]	GMT								
	95% CI								
Seroprotection[c] (titer ≥ 1:8)	n (%)								
	95% CI								

N= Number of Participants in the Per-Protocol Population. n (%) = number (%) of positive responses.

[a] 95% CI = bootstrap confidence interval (10,000 replicates) for median

[b] GMT and 95% CI are maximum likelihood estimates incorporating left and right censoring at LLOQ and ULOQ, respectively.

[c] 95% CI computed via the Clopper-Pearson method.

Table 141 (continued) Descriptive Statistics: Neutralizing Antibody Titers by Site, Time Point, Cohort and Study Vaccination, Participants Enrolled at *DHMC* – Per Protocol Population

Table 141 (continued) Descriptive Statistics: Neutralizing Antibody Titers by Site, Time Point, Cohort and Study Vaccination, Participants Enrolled at *UNC* – Per Protocol Population

Table 141 (continued) Descriptive Statistics: Neutralizing Antibody Titers by Site, Time Point, Cohort and Study Vaccination, Participants Enrolled at *PHR* – Per Protocol Population

Table 142: Descriptive Statistics: Change from Pre-Dose in Neutralizing Antibody Titers by Site, Time Point, Cohort and Study Vaccination, Participants Enrolled at *UVM* – Per Protocol Population

Parameter	Statistic	Prior IPV Participants				Prior OPV Participants			
		nOPV1	mOPV1	nOPV3	mOPV3	nOPV1	mOPV1	nOPV3	mOPV3
Change from Baseline to Day 28 Post-Dose 1									
Geometric Mean Fold-Rise [a]	N								
	GMFR								
	95% CI for GMFR								
Geometric Mean Fold-Rise Subgroup Analysis [a, b]	N								
	GMFR								
	95% CI for GMFR								
Seroconversion (≥ 4-fold rise) [c]	N								
	n (%)								
	95% CI								
Any fold-rise (increase from baseline) [c]	N								
	n (%)								
	95% CI								
≥ 2-fold rise [c]	N								
	n (%)								
	95% CI								
Change from Baseline to Day 28 Post-Dose 2									
Geometric Mean Fold-Rise [a]	N								
	GMFR								
	95% CI for GMFR								
	N								

Parameter	Statistic	Prior IPV Participants				Prior OPV Participants			
		nOPV1	mOPV1	nOPV3	mOPV3	nOPV1	mOPV1	nOPV3	mOPV3
Geometric Mean Fold-Rise Subgroup Analysis [a, b]	GMFR								
	95% CI for GMFR								
Seroconversion (≥ 4-fold rise) [c]	N								
	n (%)								
	95% CI								
Any fold-rise (increase from baseline) [c]	N								
	n (%)								
	95% CI								
≥ 2-fold rise [c]	N								
	n (%)								
	95% CI								
Repeat for:									
Change from Pre-Dose 2 to Day 28 Post-Dose 2									

N= Number of Participants in the Per-Protocol Population. GMFR = Geometric mean fold-rise.

n (%) = number (%) of positive responses.

[a] GMFR and 95% CI are asymptotic estimates based on the within-participant difference in log2 titers.

[b] Subgroup analysis includes only those with baseline and post-baseline titers both >LLOQ and <ULOQ.

[c] 95% CI for the percent is the exact, Clopper-Pearson estimate.

Table 142 (continued) Descriptive Statistics: Change from Pre-Dose in Neutralizing Antibody Titers by Site, Time Point, Cohort and Study Vaccination, Participants Enrolled at *DHMC* – Per Protocol Population

Table 142 (continued) Descriptive Statistics: Change from Pre-Dose in Neutralizing Antibody Titers by Site, Time Point, Cohort and Study Vaccination, Participants Enrolled at *UNC* – Per Protocol Population

Table 142 (continued) Descriptive Statistics: Change from Pre-Dose in Neutralizing Antibody Titers by Site, Time Point, Cohort and Study Vaccination, Participants Enrolled at *PHR* – Per Protocol Population

Tables with the same format as Table 141:

Table 143: Descriptive Statistics: Neutralizing Antibody Titers by Site, Time Point, Cohort and Study Vaccination, Participants Enrolled at *UVM* – Full Analysis Population

Table 143 (continued) Descriptive Statistics: Neutralizing Antibody Titers by Site, Time Point, Cohort and Study Vaccination, Participants Enrolled at *DHMC* – Full Analysis Population

Table 143 (continued) Descriptive Statistics: Neutralizing Antibody Titers by Site, Time Point, Cohort and Study Vaccination, Participants Enrolled at *UNC* – Full Analysis Population

Table 143 (continued) Descriptive Statistics: Neutralizing Antibody Titers by Site, Time Point, Cohort and Study Vaccination, Participants Enrolled at *PHR* – Full Analysis Population

Tables with the same format as Table 142:

Table 144: Descriptive Statistics: Change from Pre-Dose in Neutralizing Antibody Titers by Site, Time Point, Cohort and Study Vaccination, Participants Enrolled at *UVM* n – Full Analysis Population

Table 144 (continued) Descriptive Statistics: Change from Pre-Dose in Neutralizing Antibody Titers by Site, Time Point, Cohort and Study Vaccination, Participants Enrolled at *DHMC* – Full Analysis Population

Table 144 (continued) Descriptive Statistics: Change from Pre-Dose in Neutralizing Antibody Titers by Site, Time Point, Cohort and Study Vaccination, Participants Enrolled at *UNC* – Full Analysis Population

Table 144 (continued) Descriptive Statistics: Change from Pre-Dose in Neutralizing Antibody Titers by Site, Time Point, Cohort and Study Vaccination, Participants Enrolled at *PHR* – Full Analysis Population

Table 145: Baseline Comparison of Neutralizing Antibody Titers Between Sites – Per Protocol Population

Cohort	Statistic	Site				K-W Test P-Value	Wilcoxon 2-Sample Test [a] P-Values					
		UVM	DHMC	UNC	PHR	Between Sites	UVM vs DHMC	UVM vs UNC	UVM vs PHR	DHMC vs UNC	DHMC vs PHR	UNC vs PHR
Participants with prior IPV												
Cohort 1 (Type 1)	N	xx	xx	xx	xx	x.xxx	x.xxx	x.xxx	x.xxx	x.xxx	x.xxx	x.xxx
	Median	xxx	xxx	xxx	xxx							
	95% CI for Median	xx, xx	xx, xx	xx, xx	xx, xx							
Cohort 3 (Type 3)	N	xx	xx	xx	xx	x.xxx	x.xxx	x.xxx	x.xxx	x.xxx	x.xxx	x.xxx
	Median	xxx	xxx	xxx	xxx							
	95% CI for Median	xx, xx	xx, xx	xx, xx	xx, xx							
Participants with prior OPV												
Cohort 2 (Type 1)	N	xx	xx	xx	xx	x.xxx	x.xxx	x.xxx	x.xxx	x.xxx	x.xxx	x.xxx
	Median	xxx	xxx	xxx	xxx							
	95% CI for Median	xx, xx	xx, xx	xx, xx	xx, xx							
Cohort 4 (Type 3)	N	xx	xx	xx	xx	x.xxx	x.xxx	x.xxx	x.xxx	x.xxx	x.xxx	x.xxx
	Median	xxx	xxx	xxx	xxx							
	95% CI for Median	xx, xx	xx, xx	xx, xx	xx, xx							

N= Number of Participants in the Per-Protocol Population. CI = Bootstrap-based confidence interval

K-W = Kruskal-Wallis

Statistics for cohorts 1 and 2 are for serotype 1, cohort 3 and 4 are for serotype 3.

[a] Pairwise comparisons are presented only if the Kruskal-Wallis test p-value is ≤ 0.10

Same format as Table 145:

Table 146: Baseline Comparison of Neutralizing Antibody Titers Between Sites – Full Analysis Population

Table 147: Between-Group Comparison of Geometric Mean Neutralizing Antibody Titers, by Time Point, Cohort and Study Vaccination – Per Protocol Population

Prior Vaccination	Cohort	Study Vaccination	GMT [a]			GMT Ratio[b] (nOPV/nOPV)		
			N	Estimate	95% CI	Estimate	95% CI	P-Value
Baseline								
IPV	Cohort 1	nOPV1	xx	xx.x	xx.x, xx.x	xx.x	xx.x, xx.x	x.xxx
		mOPV1	xx	xx.x	xx.x, xx.x			
	Cohort 3	nOPV3						
		mOPV3						
OPV	Cohort 2	nOPV1						
		mOPV1						
	Cohort 4	nOPV3						
		mOPV3						
Day 28 Post-Dose 1								
IPV	Cohort 1	nOPV1	xx	xx.x	xx.x, xx.x	xx.x	xx.x, xx.x	x.xxx
		mOPV1	xx	xx.x	xx.x, xx.x			
	Cohort 3	nOPV3						
		mOPV3						
OPV	Cohort 2	nOPV1						
		mOPV1						
	Cohort 4	nOPV3						
		mOPV3						
Day 28 Post-Dose 2								
OPV	Cohort 2	nOPV1	xx	xx.x	xx.x, xx.x	xx.x	xx.x, xx.x	x.xxx

Prior Vaccination	Cohort	Study Vaccination	GMT [a]			GMT Ratio[b] (nOPV/nOPV)		
			N	Estimate	95% CI	Estimate	95% CI	P-Value
		mOPV1	xx	xx.x	xx.x, xx.x			
	Cohort 4	nOPV3						
		mOPV3						

N= Number of Participants in the Per-Protocol Population. GMT = Geometric mean titer. CI = Confidence interval.

Statistics for cohorts 1 and 2 are for serotype 1, cohort 3 and 4 are for serotype 3.

[a] GMT estimates are based on maximum likelihood-based methods to accommodate censoring at assay LLOQ and ULOQ and adjusted for site. Post-dose GMT estimates are also adjusted for baseline titer, with baseline titers <LLOQ or >ULOQ replaced by LLOQ and ULOQ, respectively.

[b] GMT ratios are estimated via a linear model of $\log_2$ NAb titer as a function of group and site. In addition, post-dose ratios include baseline $\log_2$ NAb titer as a covariate. Baseline and post-dose titers <LLOQ or >ULOQ were replaced by LLOQ and ULOQ, respectively.

Same format as Table 147:

Table 148: Between-Group Comparison of Geometric Mean Neutralizing Antibody Titers, by Time Point, Cohort and Study Vaccination – Sensitivity Analysis Per-Protocol Population

Add footnote to tables 148:

Data were provided in August 2022 (Cohorts 1 and 2) and in January 2023 (Cohorts 3 and 4). Additional data from all 4 cohorts (22 samples total) were provided in March 2023 and these were excluded from the sensitivity analysis per-protocol population.

Table 149: Between-Group Comparison of Geometric Mean Neutralizing Antibody Titers, by Time Point, Cohort and Study Vaccination – Full Analysis Population

Table 150: Between-Group Comparison of Geometric Mean Fold-Rise in Neutralizing Antibody Titers, by Time Point, Cohort and Study Vaccination – Per Protocol Population

Prior Vaccination	Cohort	Study Vaccination	GMFR			GMFR Ratio (nOPV/ mOPV)		
			N	Estimate	95% CI	Estimate	95% CI	P-Value
Day 28 Post-Dose 1								
IPV	Cohort 1	nOPV1	xx	xx.x	xx.x, xx.x	xx.x	xx.x, xx.x	x.xxx
		mOPV1	xx	xx.x	xx.x, xx.x			
	Cohort 3	nOPV3						
		mOPV3						
OPV	Cohort 2	nOPV1						
		mOPV1						
	Cohort 4	nOPV3						
		mOPV3						
Day 28 Post-Dose 2, Relative to Baseline								
OPV	Cohort 2	nOPV1						
		mOPV1						
	Cohort 4	nOPV3						
		mOPV3						
Day 28 Post-Dose 2, Relative to Pre-Dose 2								
OPV	Cohort 2	nOPV1						
		mOPV1						
	Cohort 4	nOPV3						
		mOPV3						

N = Number of Participants in the Per-Protocol Population. GMFR = Geometric mean fold-rise from pre-dose.
CI = Confidence interval.

Prior Vaccination	Cohort	Study Vaccination	GMFR			GMFR Ratio (nOPV/ mOPV)		
			N	Estimate	95% CI	Estimate	95% CI	P-Value
Statistics for cohorts 1 and 2 are for serotype 1, cohort 3 and 4 are for serotype 3.								
The unit of analysis is the difference between the post-dose and pre-dose $\log_2$ titers, where pre- and post-dose titers are <ULOQ. Titers <LLOQ were replaced with LLOQ.								
Reverse-transformed estimates are presented.								
GMFR (95% CI) estimates are based on asymptotic methods. GMFR ratio comparisons are based on Student's t-test, unadjusted for site.								

Same format as Table 150:

Table 151: Between-Group Comparison of Geometric Mean Fold-Rise in Neutralizing Antibody Titers, by Time Point, Cohort and Study Vaccination – Sensitivity Analysis Per-Protocol Population

Add footnote to tables 151:

Data were provided in August 2022 (Cohorts 1 and 2) and in January 2023 (Cohorts 3 and 4). Additional data from all 4 cohorts (22 samples total) were provided in March 2023 and these were excluded from the sensitivity analysis per-protocol population.

Table 152: Between-Group Comparison of Geometric Mean Fold-Rise in Neutralizing Antibody Titers, by Time Point, Cohort and Study Vaccination – Full Analysis Population

Table 153: Between-Group Comparison of Geometric Mean Fold-Rise in Neutralizing Antibody Titers, by Time Point, Cohort and Study Vaccination – Quantifiable Per Protocol Population

Table 154: Between-Group Comparison of Geometric Mean Fold-Rise in Neutralizing Antibody Titers, by Time Point, Cohort and Study Vaccination – Sensitivity Analysis Quantifiable Per Protocol Population

Add footnote to tables 154:

Data were provided in August 2022 (Cohorts 1 and 2) and in January 2023 (Cohorts 3 and 4). Additional data from all 4 cohorts (22 samples total) were provided in March 2023 and these were excluded from the sensitivity analysis per-protocol population.

Programming Note: Edit footnote for N to state: N = Number of Participants in the Per-Protocol Population with non-missing baseline and post-baseline NAb titers >LLOQ and <ULOQ.

Table 155: Seroprotection Rate in Neutralizing Antibody Titers, by Time Point, Cohort and Study Vaccination – Per Protocol Population

Prior Vaccination	Cohort	Study vaccination	Seroprotection Rate			Rate Difference (nOPV – mOPV)		
			N	n (%)	95% CI[a]	Estimate	95% CI[b]	P-Value
Baseline								
IPV	Cohort 1	nOPV1	xx	xx.x	xx.x, xx.x	xx.x	xx.x, xx.x	x.xxx
		mOPV1	xx	xx.x	xx.x, xx.x			
	Cohort 3	nOPV3						
		mOPV3						
OPV	Cohort 2	nOPV1						
		mOPV1						
	Cohort 4	nOPV3						
		mOPV3						
Day 28 Post-Dose 1								
IPV	Cohort 1	nOPV1	xx	xx.x	xx.x, xx.x	xx.x	xx.x, xx.x	x.xxx
		mOPV1	xx	xx.x	xx.x, xx.x			
	Cohort 3	nOPV3						
		mOPV3						
OPV	Cohort 2	nOPV1						
		mOPV1						
	Cohort 4	nOPV3						
		mOPV3						
Day 28 Post-Dose 2								
OPV	Cohort 2	nOPV1						

Prior Vaccination	Cohort	Study vaccination	Seroprotection Rate			Rate Difference (nOPV – mOPV)		
			N	n (%)	95% CI[a]	Estimate	95% CI[b]	P-Value
		mOPV1						
	Cohort 4	nOPV3						
		mOPV3						

N= Number of participants in the per-protocol population. n = Number of participants with a positive response.
Statistics for cohorts 1 and 2 are for serotype 1, cohort 3 and 4 are for serotype 3.

P-values represent Fisher's exact 2-sided test.
[a] Exact, Clopper-Pearson 95% Confidence interval.
[b] Miettinen and Nurminen 95% confidence interval for the rate difference.

Same format as Table 155:

Table 156: Seroprotection Rate in Neutralizing Antibody Titers, by Time Point, Cohort and Study Vaccination – Sensitivity Analysis Per Protocol Population

Add footnote to tables 156:

Data were provided in August 2022 (Cohorts 1 and 2) and in January 2023 (Cohorts 3 and 4). Additional data from all 4 cohorts (22 samples total) were provided in March 2023 and these were excluded from the sensitivity analysis per-protocol population.

Table 157: Seroprotection Rate in Neutralizing Antibody Titers, by Time Point, Cohort and Study Vaccination – Full Analysis Population

Table 158: Seroconversion Rate in Neutralizing Antibody Titers, by Time Point, Cohort and Study Vaccination – Per Protocol Population

Prior Vaccination	Cohort	Study Product	Seroconversion Rate			Rate Difference (nOPV – mOPV)		
			N	n (%)	95% CI[a]	Estimate	95% CI[b]	P-Value
Day 28 Post-Dose 1								
IPV	Cohort 1	nOPV1	xx	xx.x	xx.x, xx.x	xx.x	xx.x, xx.x	x.xxx
		mOPV1	xx	xx.x	xx.x, xx.x			
	Cohort 3	nOPV3						
		mOPV3						
OPV	Cohort 2	nOPV1						
		mOPV1						
	Cohort 4	nOPV3						
		mOPV3						
Day 28 Post-Dose 2, Relative to Baseline								
OPV	Cohort 2	nOPV1						
		mOPV1						
	Cohort 4	nOPV3						
		mOPV3						
Day 28 Post-Dose 2, Relative to Pre-Dose 2								
OPV	Cohort 2	nOPV1						
		mOPV1						
	Cohort 4	nOPV3						
		mOPV3						

N= Number of participants in the per-protocol population with SC (≥4-fold rise) possible to observe (see Section 9.1).
n = Number of participants with a positive response.

Prior Vaccination	Cohort	Study Product	Seroconversion Rate			Rate Difference (nOPV – mOPV)		
			N	n (%)	95% CI[a]	Estimate	95% CI[b]	P-Value
Statistics for cohorts 1 and 2 are for serotype 1, cohort 3 and 4 are for serotype 3. P-values represent Fisher's exact 2-sided test. [a] Exact, Clopper-Pearson 95% Confidence interval. [b] Miettinen and Nurminen 95% confidence interval for the rate difference.								

Same format as Table 158:

Table 159: Seroconversion Rate in Neutralizing Antibody Titers, by Time Point, Cohort and Study Vaccination – Sensitivity Analysis Per Protocol Population

Add footnote to tables 159:

Data were provided in August 2022 (Cohorts 1 and 2) and in January 2023 (Cohorts 3 and 4). Additional data from all 4 cohorts (22 samples total) were provided in March 2023 and these were excluded from the sensitivity analysis per-protocol population.

Table 160: Seroconversion Rate in Neutralizing Antibody Titers, by Time Point, Cohort and Study Vaccination – Full Analysis Population

Table 161: Fold-Rise ≥ 2 in Neutralizing Antibody Titers, by Time Point, Cohort and Study Vaccination – Per Protocol Population

Table 162: Fold-Rise ≥ 2 in Neutralizing Antibody Titers, by Time Point, Cohort and Study Vaccination – Sensitivity Analysis Per Protocol Population

Add footnote to tables 162:

Data were provided in August 2022 (Cohorts 1 and 2) and in January 2023 (Cohorts 3 and 4). Additional data from all 4 cohorts (22 samples total) were provided in March 2023 and these were excluded from the sensitivity analysis per-protocol population.

Table 163: Fold-Rise ≥ 2 in Neutralizing Antibody Titers, by Time Point, Cohort and Study Vaccination – Full Analysis Population

Update footnote for tables 161 to 163 to "N= Number of participants in the <<population>> with a 2-fold rise possible to observe."

Table 164: Any Increase in Neutralizing Antibody Titers, by Time Point, Cohort and Study Vaccination – Per Protocol Population

Table 165: Any Increase in Neutralizing Antibody Titers, by Time Point, Cohort and Study Vaccination – Sensitivity Analysis Per Protocol Population

Add footnote to tables 165:

> Data were provided in August 2022 (Cohorts 1 and 2) and in January 2023 (Cohorts 3 and 4). Additional data from all 4 cohorts (22 samples total) were provided in March 2023 and these were excluded from the sensitivity analysis per-protocol population.

Table 166: Any Increase in Neutralizing Antibody Titers, by Time Point, Cohort and Study Vaccination – Full Analysis Population

Update footnote for tables 164 to 166 to "N= Number of participants in the <<population>> with an increase (baseline titer <ULOQ) possible to observe."

a. Viral Shedding

Table 167: Type 1 Viral Shedding Positivity, by Study Product and Time Point - Cohort 1, Safety Population

Cohort 1, Participants with an Exclusive IPV Vaccination History										
Study Day [a]	**nOPV1**			**mOPV1**			**Rate Difference (nOPV1 – mOPV1)**		**Rate Ratio [d] (nOPV1 / mOPV1)**	
	N	**n (%)**	**95% CI [b]**	**N**	**n (%)**	**95% CI [b]**	**Estimate**	**95% CI [c]**	**Estimate**	**95% CI**
PCR-Positive Samples										
Day 3										
Day 5										
Day 8										
Day 10										
Day 15										
Day 22										
Day 25e										
Day 29										
Day 36										
Day 43										
Day 50										
Day 57										
Any Time										
Repeat the above for:										
Culture-Positive Sample ($> 2.75 \log_{10} CCID_{50}/g$**)**										
Culture-Positive Sample ($\geq 4.0 \log_{10} CCID_{50}/g$**)**										

N = Number of participants vaccinated and with evaluable results. n (%) = Number of positive samples out of N.

[a] Nominal study day (samples collected within visit window).

[b] Exact Clopper-Pearson 95% confidence interval for the percent positive.

Cohort 1, Participants with an Exclusive IPV Vaccination History
[c] Score-based Miettinen and Nurminen 95% confidence interval for the difference in shedding rates.
[d] Relative-risk estimates and corresponding 95% likelihood ratio confidence limits.
[e] Samples collected at times outside nominal study day windows.

Program notes: Study day is defined by the visit number associated with the sample, regardless of whether the visit was within window.
** indicates unscheduled visits at which any samples were collected.*

Table 168: Type 1 Viral Shedding Positivity, by Study Product and Time Point - Cohort 2, Safety Population

Cohort 2, Participants with an OPV-Containing Vaccination History											
Dose	**Study Day [a]**	**nOPV1**			**mOPV1**			**Rate Difference (nOPV1 – mOPV1)**		**Rate Ratio [d] (nOPV1 / mOPV1)**	
		N	**n (%)**	**95% CI [b]**	**N**	**Estimate**	**95% CI [b]**	**Estimate**	**95% CI [c]**	**Estimate**	**95% CI**
PCR-Positive Samples											
Post-Dose 1	Day 8										
	Day 15										
	Day 22										
	Day 29 [f]										
	Any Time										
Post-Dose 2	Day 36										
	Day 43										
	Day 50										
	Day 57										
	Any Time										
Repeat the above for:											
Culture-Positive Sample ($> 2.75 \log_{10} CCID_{50}/g$)											
Culture-Positive Sample ($\geq 4.0 \log_{10} CCID_{50}/g$)											

N = Number of participants vaccinated and with evaluable results. n (%) = Number of positive samples out of N.

[a] Nominal study day (samples collected within visit window).

[b] Exact Clopper-Pearson 95% confidence interval for the percent positive.

[c] Score-based Miettinen and Nurminen 95% confidence interval for the difference in shedding rates.

[d] Relative-risk estimates and corresponding 95% likelihood ratio confidence limits.

[e] Samples collected at times outside nominal study day windows.

[f] Pre-dose 2 samples.

Table 169: Type 3 Viral Shedding Positivity, by Study Product and Time Point - Cohort 3, Safety Population

Cohort 3, Participants with an Exclusive IPV Vaccination History

Same format as Table 167 but with columns labeled nOPV3 and mOPV3

Table 170: Type 3 Viral Shedding Positivity, by Study Product and Time Point - Cohort 4, Safety Population

Cohort 4, Participants with an OPV-Containing Vaccination History

Same format as Table 168 but with columns labeled nOPV3 and mOPV3

Table 171: Type 1 Viral Shedding Infectivity (log_{10} $CCID_{50}$ per gram), by Study Product and Time Point – Cohort 1, Safety Population

Cohort 1, Participants with an Exclusive IPV Vaccination History									
Study Day [a]	**nOPV1 (N=)**			**mOPV1 (N=)**			**Difference (nOPV1 – mOPV1)**		
	n	**Median**	**95% CI [b]**	**n**	**Median**	**95% CI [b]**	**Estimate**	**95% CI [c]**	**P-Value [d]**
Day 3									
Day 5									
Day 8									
Day 10									
Day 15									
Day 22									
Day 29									
Day 36									
Day 38[e]									
Day 43									
Day 50									
Day 57									

N = Number of participants in the safety population. n = Number of participants with data.

Participants PCR-positive for type-specific viral shedding of only the appropriate virus but with log_{10} $CCID_{50}$ per gram ≤LLOQ contribute a value equal to the LLOQ; participants PCR-negative for viral shedding contribute a value of zero.

[a] Nominal study day (samples collected within visit window).

[b] Bootstrap-based 95% confidence interval for the median (10,000 samples).

[c] Bootstrap-based 95% confidence interval for the difference in medians (10,000 samples).

[d] P-Value = Wilcoxon 2-sample test for the difference in distribution.

[e] Samples collected at times outside nominal study day windows

Table 172: Type 1 Viral Shedding Infectivity (log_{10} $CCID_{50}$ per gram), by Study Product and Time Point – Cohort 2, Safety Population

Cohort 2, Participants with an OPV-Containing Vaccination History									
Study Day [a]	**nOPV1 (N=)**			**mOPV1 (N=)**			**Difference (nOPV1 – mOPV1)**		
	n	**Median**	**95% CI [b]**	**n**	**Median**	**95% CI [b]**	**Estimate**	**95% CI [c]**	**P-Value [d]**
Post-Dose 1									
Day 8									
Day 15									
Day 22									
Day 29 [f]									
Post-Dose 2									
Day 36									
Day 38[e]									
Day 43									
Day 50									
Day 57									

N = Number of participants in the safety population. n = Number of participants with data.

Participants PCR-positive for type-specific viral shedding of only the appropriate virus but with log_{10} $CCID_{50}$ per gram ≤LLOQ contribute a value equal to the LLOQ; participants PCR-negative for viral shedding contribute a value of zero.

[a] Nominal study day (samples collected within visit window).

[b] Bootstrap-based 95% confidence interval for the median (10,000 samples).

[c] Bootstrap-based 95% confidence interval for the difference in medians (10,000 samples).

[d] P-Value = Wilcoxon 2-sample test for the difference.

[e] Samples collected at times outside nominal study day windows.

[f] Pre-dose 2 samples.

Table 173: Type 3 Viral Shedding Infectivity (log_{10} $CCID_{50}$ per gram), by Study Product and Time Point – Cohort 3, Safety Population

Cohort 3, Participants with an Exclusive IPV Vaccination History

Same format as Table 171 but with columns labeled nOPV3 and mOPV3

Table 174: Type 3 Viral Shedding Infectivity (log_{10} $CCID_{50}$ per gram), by Study Product and Time Point – Cohort 4, Safety Population

Cohort 4, Participants with an OPV-Containing Vaccination History

Same format as Table 172 but with columns labeled nOPV3 and mOPV3

PCR-Positive samples only

Tables with the same visit definitions, format, etc., as above for Viral Shedding Infectivity:

Table 175: Type 1 Viral Shedding Infectivity (log_{10} $CCID_{50}$ per gram), by Study Product and Time Point –PCR-Positive Samples, Cohort 1 - Safety Population

Table 176: Type 1 Viral Shedding Infectivity (log_{10} $CCID_{50}$ per gram), by Study Product and Time Point –PCR-Positive Samples, Cohort 2 - Safety Population

Table 177: Type 3 Viral Shedding Infectivity (log_{10} $CCID_{50}$ per gram), by Study Product and Time Point –PCR-Positive Samples, Cohort 3 - Safety Population

Table 178: Type 3 Viral Shedding Infectivity (log_{10} $CCID_{50}$ per gram), by Study Product and Time Point –PCR-Positive Samples, Cohort 4 - Safety Population

Programming note: Update last footnote to "Participants with log_{10} $CCID_{50}$ per gram ≤LLOQ contribute a value equal to the LLOQ"

Table 179: Shedding Index Endpoint (SIE), by Cohort, Dose Number and Product Received – Samples Collected at Nominal Collection Day Visits – Viral Shedding Populations

Cohort (Prior Vaccination)	Vaccination Group	SIE			Difference (nOPV - mOPV)		
		N	Median	95% CI	Estimate	95% CI	P-Value
Post-Dose 1 [a]							
Cohort 1 (IPV)	nOPV1	xx	xx.x	xx.x, xx.x	xx.x	xx.x, xx.x	x.xxx
	mOPV1	xx	xx.x	xx.x, xx.x			
Cohort 2 (OPV)	nOPV1						
	mOPV1						
Cohort 3 (IPV)	nOPV3						
	mOPV3						
Cohort 4 (OPV)	nOPV3						
	mOPV3						
Post-Dose 2 [b]							
Cohort 2 (OPV)	nOPV1						
	mOPV1						
Cohort 4 (OPV)	nOPV3						
	mOPV3						
Post-Dose-2 Sub-Population [c, d]							
Cohort 2 (OPV)	nOPV1						
	mOPV1						
Cohort 4 (OPV)	nOPV3						
	mOPV3						

N = Number of participants vaccinated and with samples collected (delivered to the site) at all 4 time points. Samples produced within 2 days of the nominal study day and appropriately collected, stored and processed contribute to the SIE computation at the respective nominal study day.

Cohort (Prior Vaccination)	Vaccination Group	SIE			Difference (nOPV - mOPV)		
		N	Median	95% CI	Estimate	95% CI	P-Value

95% CI = Bootstrap-based 95% confidence interval for the median and difference in medians (10,000 samples).

P-Value = Wilcoxon 2-sample test of a difference between groups.

SIE is calculated as the arithmetic mean of $\log_{10}$ $CCID_{50}$/g across the appropriate nominal days or within respective sampling windows. Participants PCR-positive for type-specific viral shedding of only the appropriate virus but with log10 CCID50 per gram ≤LLOQ contribute a value equal to the LLOQ

See Table 7 for viral shedding analysis population definitions.

[a] SIE_1 (0 – 28) analysis population

[b] SIE_2 (28 – 56) analysis population

[c] SIE_3 (28 – 56) analysis population

[d] Post-Dose 2 samples in participants who were PCR-negative for their last pre-dose 2 sample.

Table 180: Viral Shedding Area Under the Curve (AUC), by Cohort, Dose Number and Product Received - Viral Shedding Populations

Cohort (Prior Vaccination)	Vaccination Group	AUC			Difference (nOPV - mOPV)		
		N	Median	95% CI	Median	95% CI	P-Value
Post-Dose 1 Days 2 to 56							
Cohort 1 (IPV) [a]	nOPV1	xx	xx.x	xx.x, xx.x	xx.x	xx.x, xx.x	x.xxx
	mOPV1	xx	xx.x	xx.x, xx.x			
Cohort 3 (IPV) [a]	nOPV1						
	mOPV1						
Post-Dose 1 Days 7 to 28							
Cohort 1 (IPV) [b]	nOPV1	xx	xx.x	xx.x, xx.x	xx.x	xx.x, xx.x	x.xxx
	mOPV1	xx	xx.x	xx.x, xx.x			
Cohort 2 (OPV) [c]	nOPV1						
	mOPV1						
Cohort 3 (IPV) [b]	nOPV3						
	mOPV3						
Cohort 4 (OPV) [c]	nOPV3						
	mOPV3						
Post-Dose 2 Days 7 to 28							
Cohort 2 (OPV) [d]	nOPV1						
	mOPV1						
Cohort 4 (OPV) [d]	nOPV3						
	mOPV3						
Post-Dose-2 Days 7 to 28 Sub-Population [f]							

Cohort (Prior Vaccination)	Vaccination Group	AUC			Difference (nOPV - mOPV)		
		N	Median	95% CI	Median	95% CI	P-Value
Cohort 2 (OPV) [e]	nOPV1						
	mOPV1						
Cohort 4 (OPV) [e]	nOPV3						
	mOPV3						

N = Number of participants in the safety population.

95% CI = Bootstrap-based 95% confidence interval for the median and difference in medians (10,000 samples).

P-Value = Wilcoxon 2-sample test of a difference between groups.

[a] Includes all participants negative for shedding of vaccine virus in the last evaluable sample available prior to the second dose

Participants PCR-positive for type-specific viral shedding of only the appropriate virus but with log10 CCID50 per gram ≤LLOQ contribute a value equal to the LLOQ.

AUC is computed across all visits, but with constraints. See Table 7 for analysis population definitions.

[a] AUC_3 (0 – 56) analysis population

[b] AUC_2 (0 – 28) analysis population

[c] AUC_1 (0 – 28) analysis population

[d] AUC_4 (28 – 56) analysis population

[e] AUC_5 (28 – 56) analysis population

[f] Post-Dose 2 samples in participants who were PCR-negative for their last pre-Dose 2 sample.

Programming note:

The AUC per participant will be calculated on the natural $CCID_{50}$ per gram scale, analyzed on a log_{10} scale then back-transformed for reporting the results.

However, the results may be reported on a log_{10} $CCID_{50}$ per gram scale if the numbers seem too large.

Table 181: Time to Cessation of Fecal Shedding in Prior IPV Recipients – All Participants with Any Shedding Results

Method / Cohort	Quartile	nOPV1		mOPV1		P-value [b]
		Estimate	95% CI [a]	Estimate	95% CI [a]	
PCR						
Cohort 1 (Type 1)	25%	x.x	x.x, x.x	x.x	x.x, x.x	0.xxx
	50% (Median)					
	75%					
Cohort 3 (Type 3)	25%					
	50% (Median)					
	75%					
Repeat the above for:						
Culture (> 2.75 $\log_{10}$ $CCID_{50}$/g)						
Culture (≥ 4.0 $\log_{10}$ $CCID_{50}$/g)						

[a] 95% confidence interval calculated utilizing interval-censoring methodology.

[b] P-value calculated from the generalized log-rank test.

Table 182: Time to Cessation of Fecal Shedding by PCR in Prior OPV Recipients, by Dose – All Participants with Any Shedding Results

Method / Cohort	**Dose**	**Quartile**	**nOPV3**		**mOPV3**		**P-value [b]**
			Estimate	**95% CI [a]**	**Estimate**	**95% CI [a]**	
PCR-Positive Samples							
Cohort 2 (Type 1)	Post-Dose 1	25%	x.x	x.x, x.x	x.x	x.x, x.x	0.xxx
		50% (Median)					
		75%					
	Post-Dose 2	25%					0.xxx
		50% (Median)					
		75%					
	Post-Dose 2 Sub-Population [c]	25%					0.xxx
		50% (Median)					
		75%					
Cohort 4 (Type 3)	Post-Dose 1	25%					0.xxx
		50% (Median)					
		75%					
	Post-Dose 2	25%					0.xxx
		50% (Median)					
		75%					
	Post-Dose 2 Sub-Population [c]	25%					0.xxx
		50% (Median)					
		75%					
Repeat the above for:							

Culture-Positive Sample ($> 2.75 \log_{10} CCID_{50}/g$ **)**	
Culture-Positive Sample ($\geq 4.0 \log_{10} CCID_{50}/g$ **)**	

[a] 95% confidence interval calculated utilizing interval-censoring methodology.

[b] P-value calculated from the generalized log-rank test.

[c] Participants negative for shedding of vaccine virus in the last evaluable sample available prior to the second dose.

Table 183: Proportion of Prior IPV Recipients Reaching the Shedding Cessation Endpoint, by Nominal Sampling Day and Study Vaccine – Safety Population

	Cohort 1				Cohort 3			
Study Visit Day	**nOPV1 (N=)**		**mOPV1 (N=)**		**nOPV3 (N=)**		**mOPV3 (N=)**	
	%	**95% CI [a]**	**%**	**95% CI [a]**	**%**	**95% CI [a]**	**%**	**95% CI [a]**
PCR-Positive Samples								
Day 3	x.x	x.x, x.x	x.x	x.x, x.x	x.x	x.x, x.x	x.x	x.x, x.x
Day 5								
Day 8								
Day 10								
Day 15								
Day 22								
Day 29								
Day 36								
Day 43								
Day 50								
Day 57								
Repeat the above for:								
Culture-Positive Sample (> 2.75 $\log_{10}$ $CCID_{50}$/g)								
Culture-Positive Sample (≥ 4.0 $\log_{10}$ $CCID_{50}$/g)								

N = Number of participants in the safety population. CI = Confidence interval.

Estimates are calculated via the Kaplan-Meier analysis utilizing interval-censoring methodology.

Programming note: Estimates are obtained from the "OUTSURV" dataset option in the PROC ICLIFETEST line where the TIME variable values are based on actual sample collection days.

Table 184: Proportion of Prior OPV Recipients Reaching the Shedding Cessation Endpoint, by Dose Number, Nominal Sampling Day and Study Vaccine – Safety Population

	Study Visit Day	Cohort 2				Cohort 4			
		nOPV1 (N=)		mOPV1 (N=)		nOPV3 (N=)		mOPV3 (N=)	
		%	95% CI [a]	%	95% CI [a]	%	95% CI [a]	%	95% CI [a]
PCR-Positive Samples									
Post-Dose 1	Day 8								
	Day 15								
	Day 22								
	Day 29								
Post-Dose 2	Day 36								
	Day 43								
	Day 50								
	Day 57								
Post-Dose 2 Sub-Population [a]	Day 36								
	Day 43								
	Day 50								
	Day 57								
Repeat the above for:									
Culture-Positive Sample (> 2.75 $\log_{10}$ $CCID_{50}$/g**)**									
Culture-Positive Sample (≥ 4.0 $\log_{10}$ $CCID_{50}$/g**)**									

Estimates are calculated via the Kaplan-Meier analysis utilizing interval-censoring methodology.

Separate models were fit to each dose.

[a] Post-Dose 2 data from participants who were PCR-negative for their last pre-dose 2 sample.

16. APPENDIX 2
FIGURES

LIST OF FIGURES

A. DEMOGRAPHICS

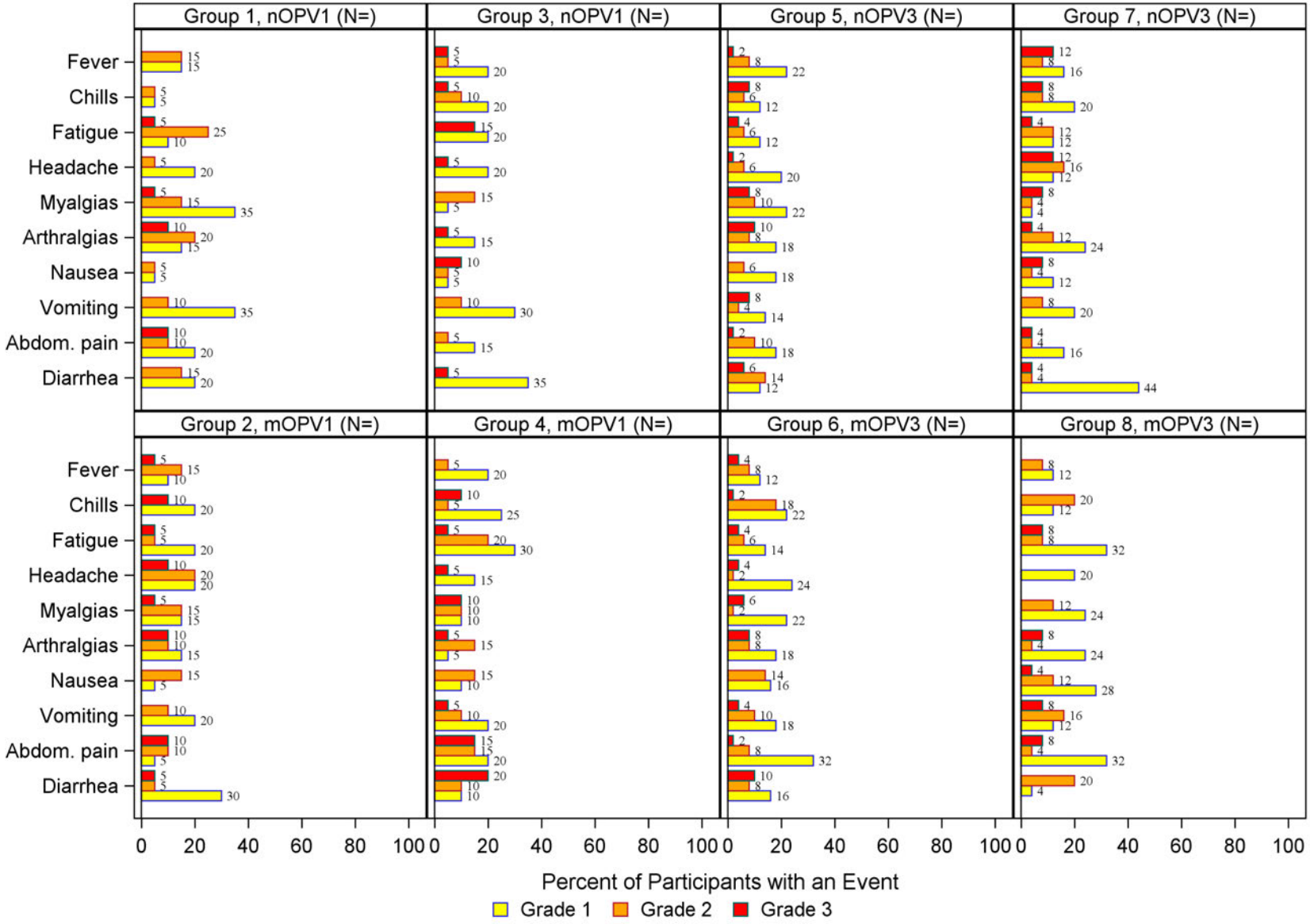
Figure 1: CONSORT Flow Diagram

Note: tabular form shown, which is easier to edit. Actual diagram will be in the standard format. Either separate diagrams for OPV1 and OPV3 cohorts, or separate diagrams for 1- and 2-dose cohorts.

Assessed for eligibility	xxx							
Screen failures	xxx							
Screen failure reason 1	xxx							
Screen failure reason 2	xxx							
Etc.	xxx							
Randomized	xxx							
Cohort	**Cohort 1**		**Cohort 2**		**Cohort 3**		**Cohort 4**	
Study treatment group	**nOPV1**	**mOPV1**	**nOPV1**	**mOPV1**	**nOPV3**	**mOPV3**	**nOPV3**	**mOPV3**
ALLOCATION								
Allocated to group	xxx							
Received allocated vaccination dose 1	xxx							
Did not receive allocated vaccination	xxx							
Reason 1	xxx							
Reason 2	xxx							
Etc.	xxx							
FOLLOW-UP								
Received allocated vaccination dose 2	NA	NA			NA	NA		
Discontinued vaccinations	NA	NA			NA	NA		
Reason 1	NA	NA			NA	NA		
Reason 2	NA	NA			NA	NA		
Etc.	NA	NA			NA	NA		

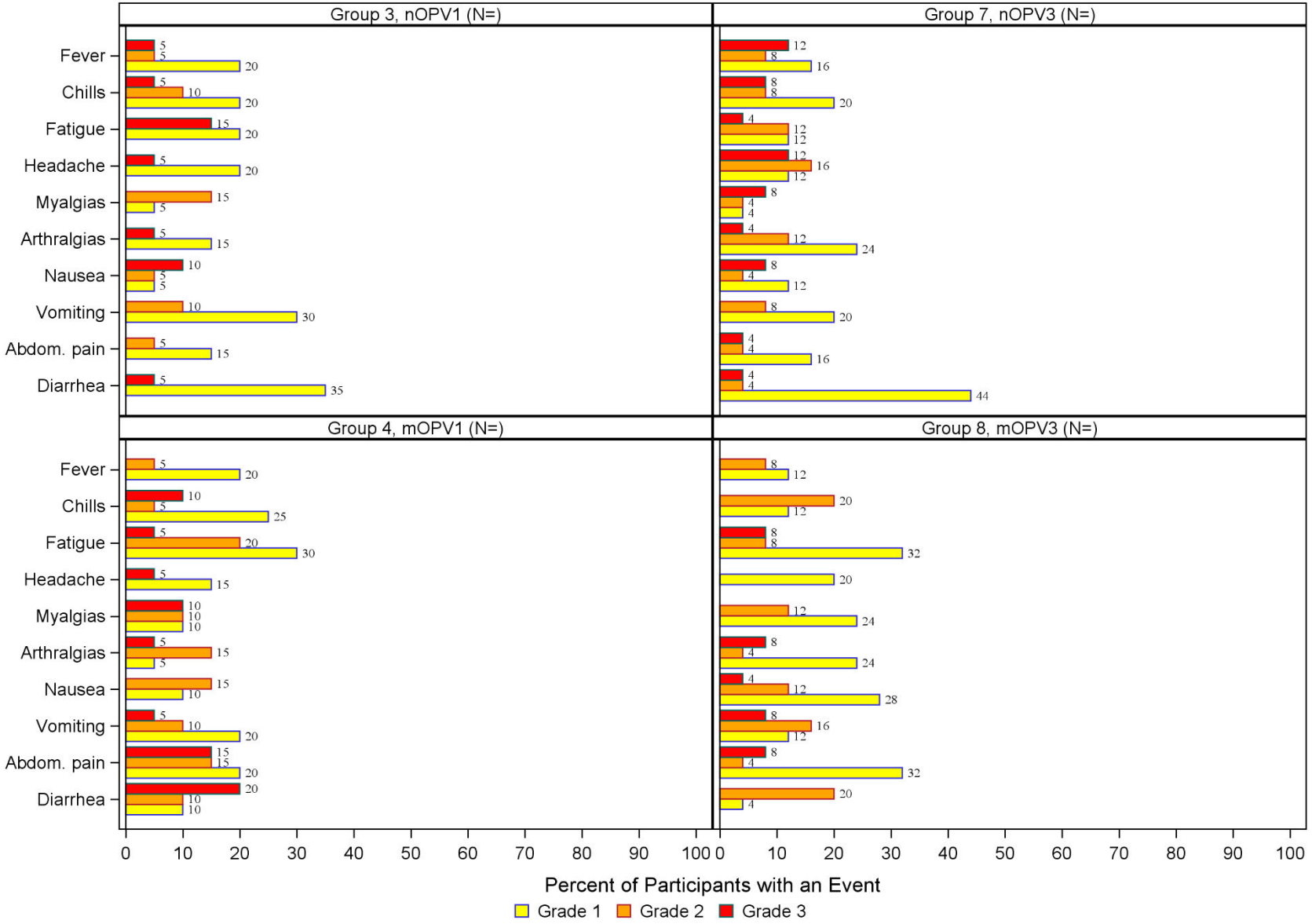
Early termination								
Reason 1								
Reason 2								
Etc.								
ANALYSIS								
Analyzed for reactogenicity								
Excluded from reactogenicity analyses								
Randomized but not vaccinated								
Analyzed for safety								
Excluded from safety analyses								
Possible transmission events								
Analyzed for day 29 immunogenicity								
Excluded from day 29 immunogenicity analyses								
Reason 1								
Reason 2								
Etc.								
Analyzed for day 57 immunogenicity								
Excluded from day 57 immunogenicity analyses								
Reason 1								
Reason 2								
Etc.								

Figure 2: Maximum Severity of Solicited AEs by Vaccine Group, Post-Dose 1 – Safety Population



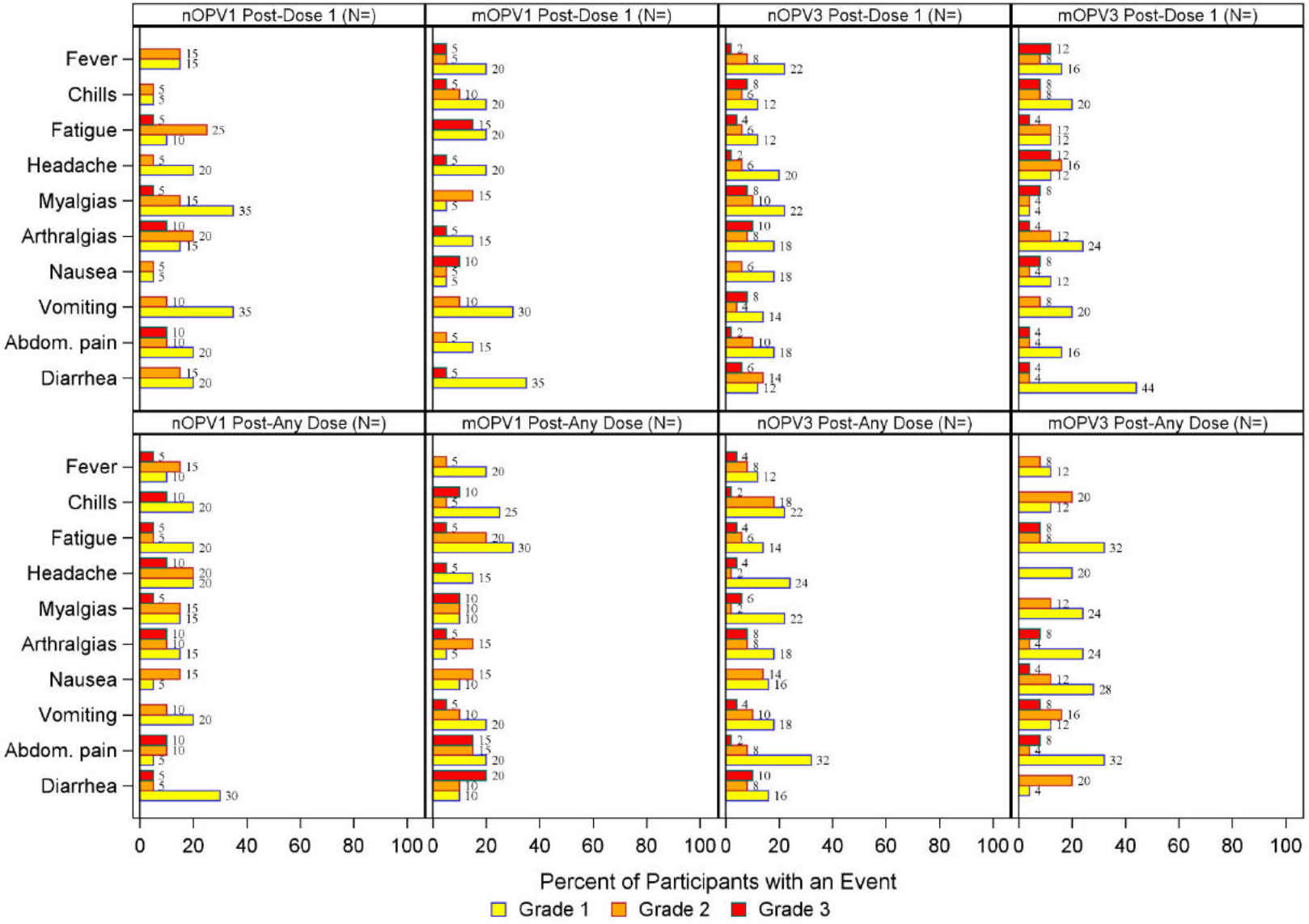
Numbers on each bar represent the percent of participants with an event

Figure 3: Maximum Severity of Solicited AEs by Vaccine Group, Post-Dose 2 – Reactogenicity Population



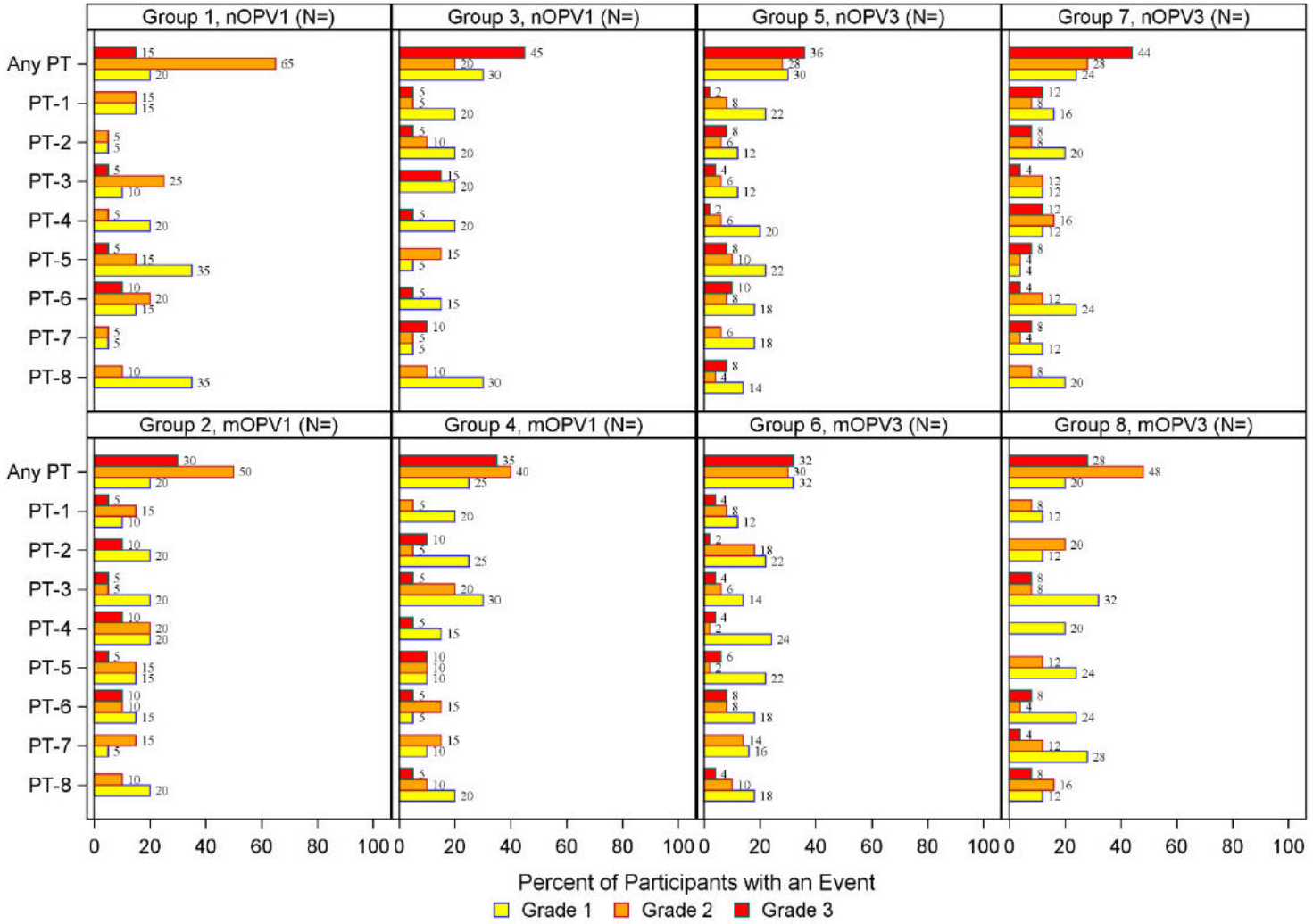
Numbers on each bar represent the percent of participants with an event

Figure 4: Maximum Severity of Solicited AEs by Study Product Post-Dose 1 and Post-Any Dose – Reactogenicity Population



Numbers on each bar represent the percent of participants with an event

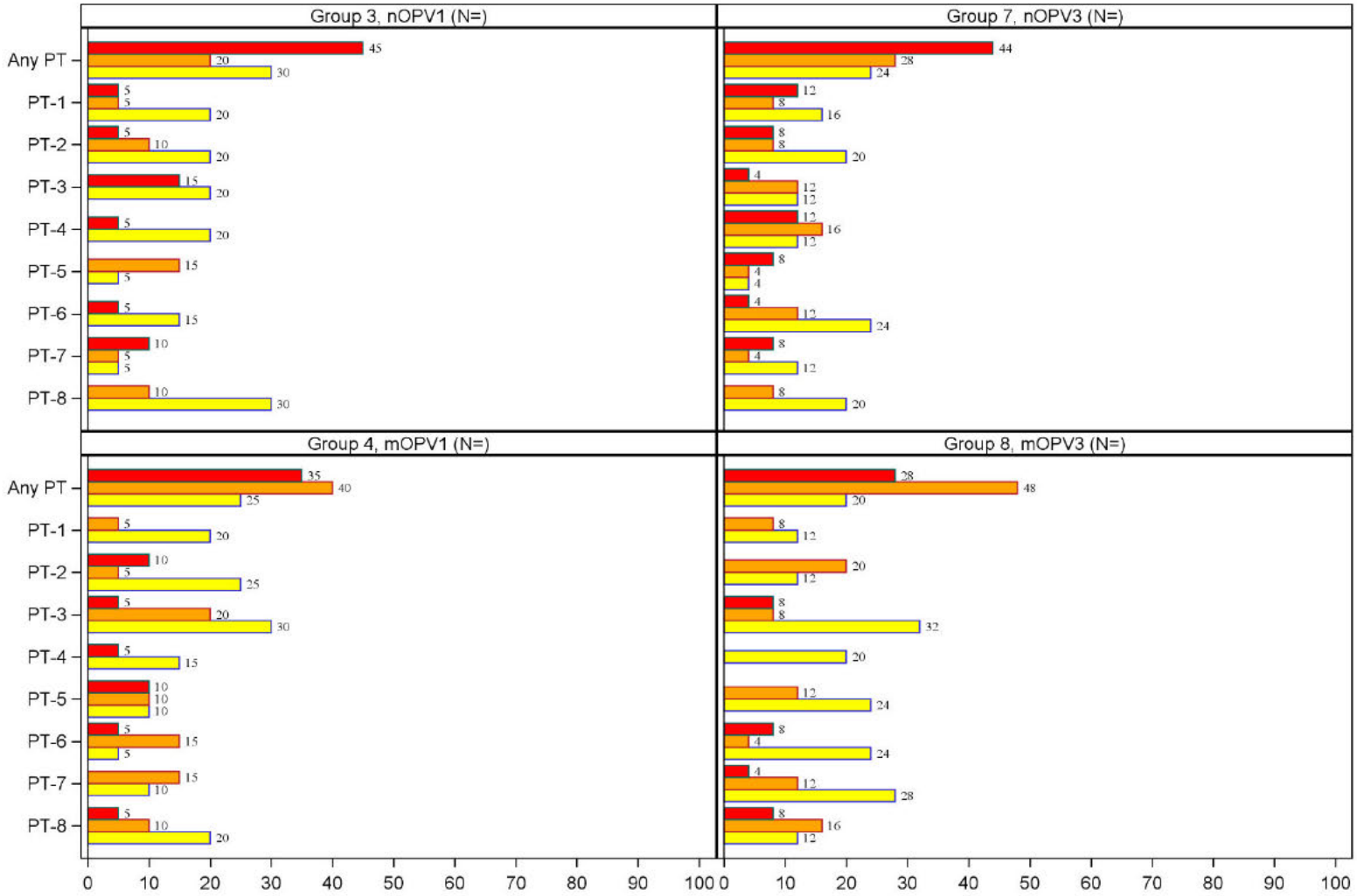
Figure 5: Maximum Severity of Unsolicited AEs by Vaccine Group, Post-Dose 1 – Safety Population.



Includes preferred terms reported by ≥ 10% of participants in any one treatment group. In 2-dose cohorts, post-dose 1 AEs exclude those with onset post-dose 2. SAEs are reported as unsolicited AEs irrespective of onset date. Numbers on each bar represent the percent of participants with an event.

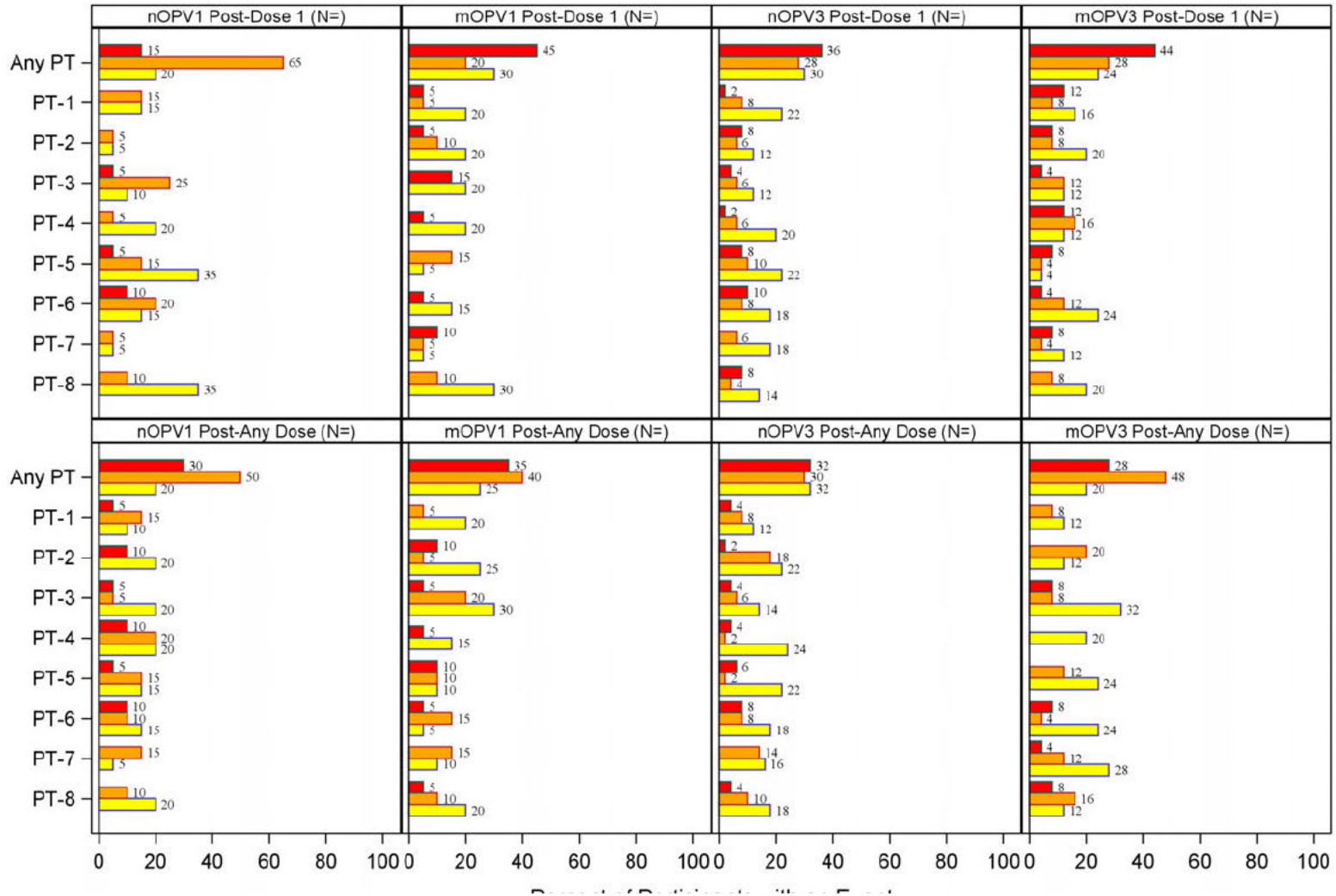
Programming note: Format may change depending on the difficulty of getting the whole thing on one page. E.g., use 2 pages.

Figure 6: Maximum Severity of Unsolicited AEs by Treatment Group, Post-Dose 2 – Safety Population.



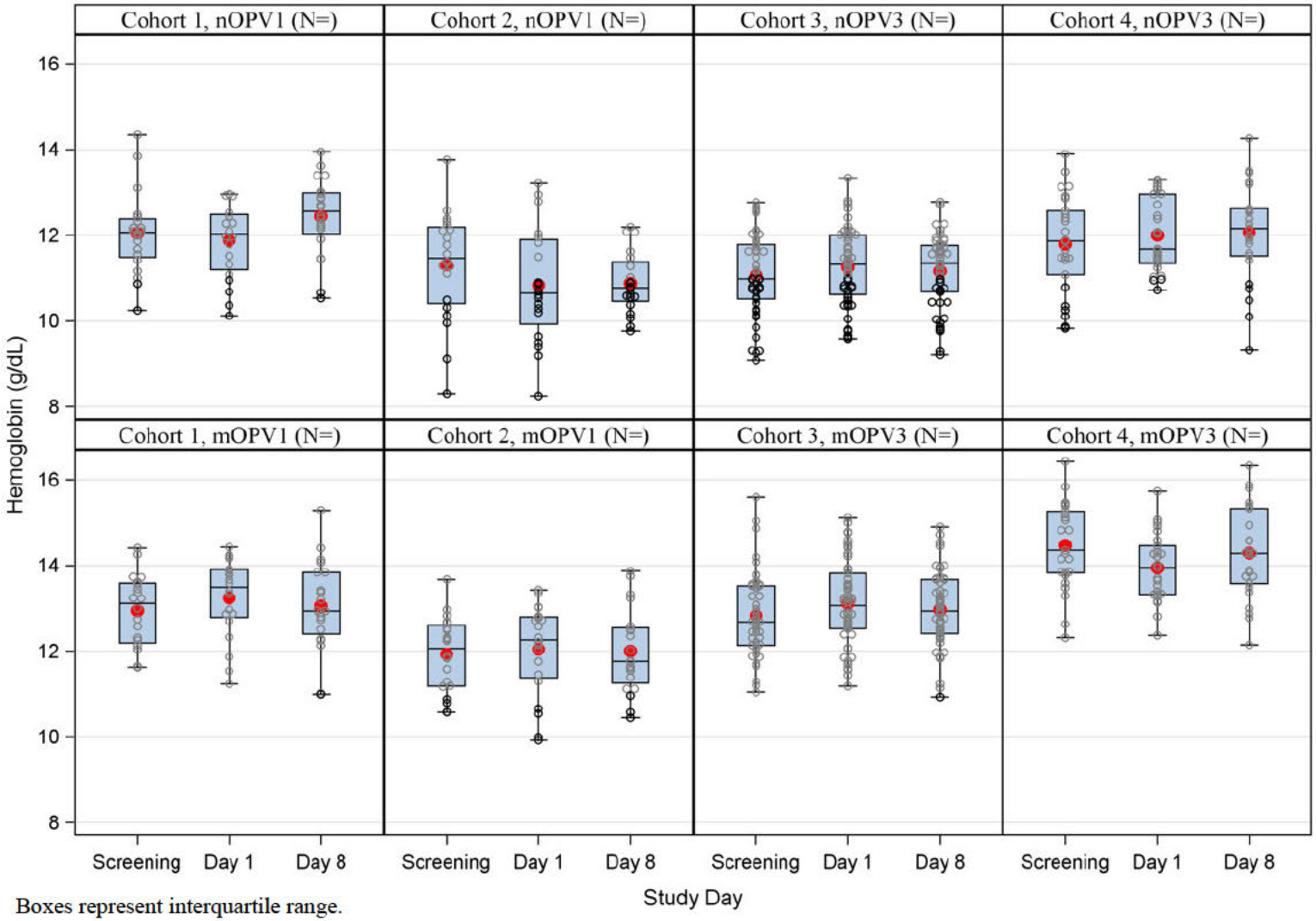
Includes preferred terms reported by ≥ 10% of participants in any one treatment group. SAEs are reported as unsolicited AEs irrespective of onset date.
Numbers on each bar represent the percent of participants with an event.

Figure 7: Maximum Severity of Unsolicited AEs by Study Product Post-Dose 1 and Post-Any Dose – Safety Population.



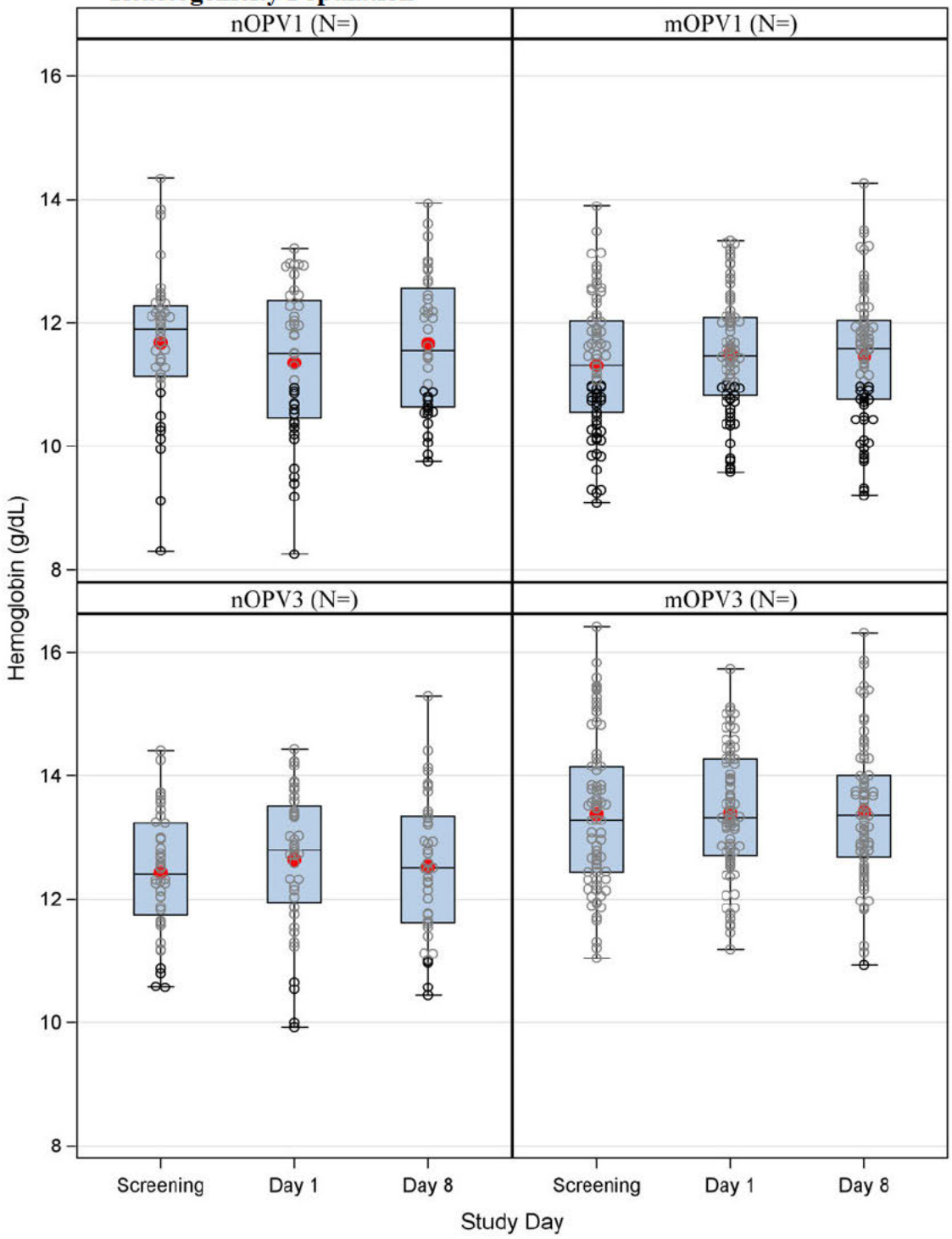
Includes preferred terms reported by ≥ 10% of participants in any one treatment group. In 2-dose cohorts, post-dose 1 AEs exclude those with onset post-dose 2. SAEs are reported as unsolicited AEs irrespective of onset date. Numbers on each bar represent the percent of participants with an event.

Figure 8: Distribution of Hemoglobin (g/dL), by Vaccine Group and Day – Reactogenicity Population



Boxes represent interquartile range.
Horizontal line within the box represents the median.
Red dot is the mean.
Black circles are values of grade 2 or higher.

Figure 9: Distribution of Hemoglobin (g/dL), by Study Vaccination and Day – Reactogenicity Population



Boxes represent interquartile range.
Horizontal line within the box represents the median.
Red dot is the mean.
Black circles are values of grade 2 or higher.

Repeat for:

Figure 10: Distribution of Hematocrit (%), by Treatment Group and Day – Reactogenicity Population

Figure 11: Distribution of Hematocrit (%), by Study Vaccination and Day – Reactogenicity Population

Figure 12: Distribution of WBC Count (cells/mm^3), by Treatment Group and Day – Reactogenicity Population

Figure 13: Distribution of WBC Count (cells/mm^3), by Study Vaccination and Day – Reactogenicity Population

Figure 14: Distribution of Neutrophil Count (cells/mm^3), by Treatment Group and Day – Reactogenicity Population

Figure 15: Distribution of Neutrophil Count (cells/mm^3), by Study Vaccination and Day – Reactogenicity Population

Figure 16: Distribution of Lymphocyte Count (cells/mm^3), by Treatment Group and Day – Reactogenicity Population

Figure 17: Distribution of Lymphocyte Count (cells/mm^3), by Study Vaccination and Day – Reactogenicity Population

Figure 18: Distribution of Eosinophil Count (cells/mm^3), by Treatment Group and Day – Reactogenicity Population

Figure 19: Distribution of Eosinophil Count (cells/mm^3), by Study Vaccination and Day – Reactogenicity Population

Figure 20: Distribution of Platelet Count (cells/mm^3), by Treatment Group and Day – Reactogenicity Population

Figure 21: Distribution of Platelet Count (cells/mm^3), by Study Vaccination and Day – Reactogenicity Population

Figure 22: Distribution of ALT (U/L), by Treatment Group and Day – Reactogenicity Population

Figure 23: Distribution of ALT (U/L), by Study Vaccination and Day – Reactogenicity Population

Figure 24: Distribution of Total Bilirubin (mg/dL), by Treatment Group and Day – Reactogenicity Population

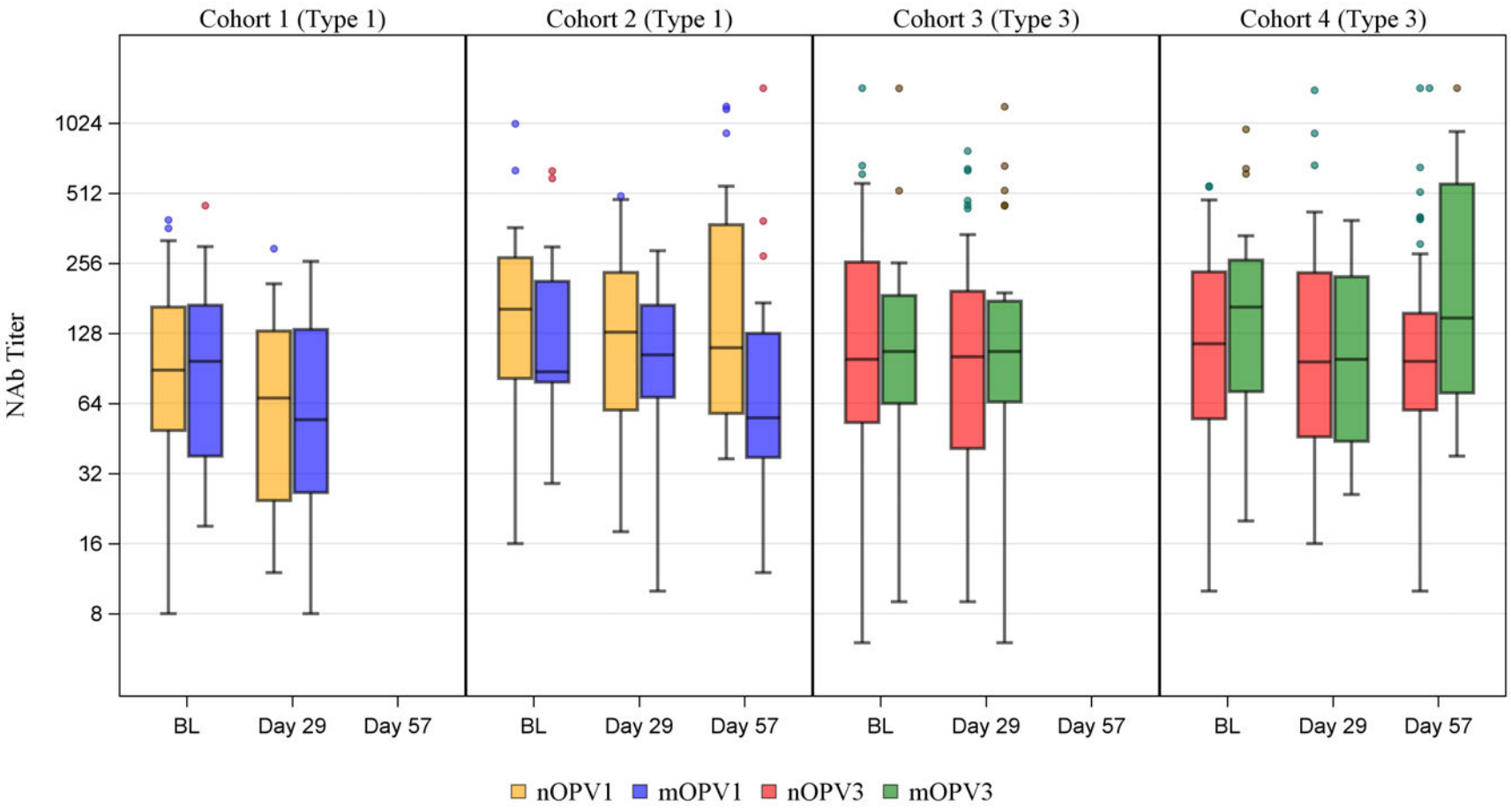
Figure 25: Distribution of Total Bilirubin (mg/dL), by Study Vaccination and Day – Reactogenicity Population

Figure 26: Distribution of Creatinine (mg/dL), by Treatment Group and Day – Reactogenicity Population

Figure 27: Distribution of Creatinine (mg/dL), by Study Vaccination and Day – Reactogenicity Population

B. IMMUNOGENICITY

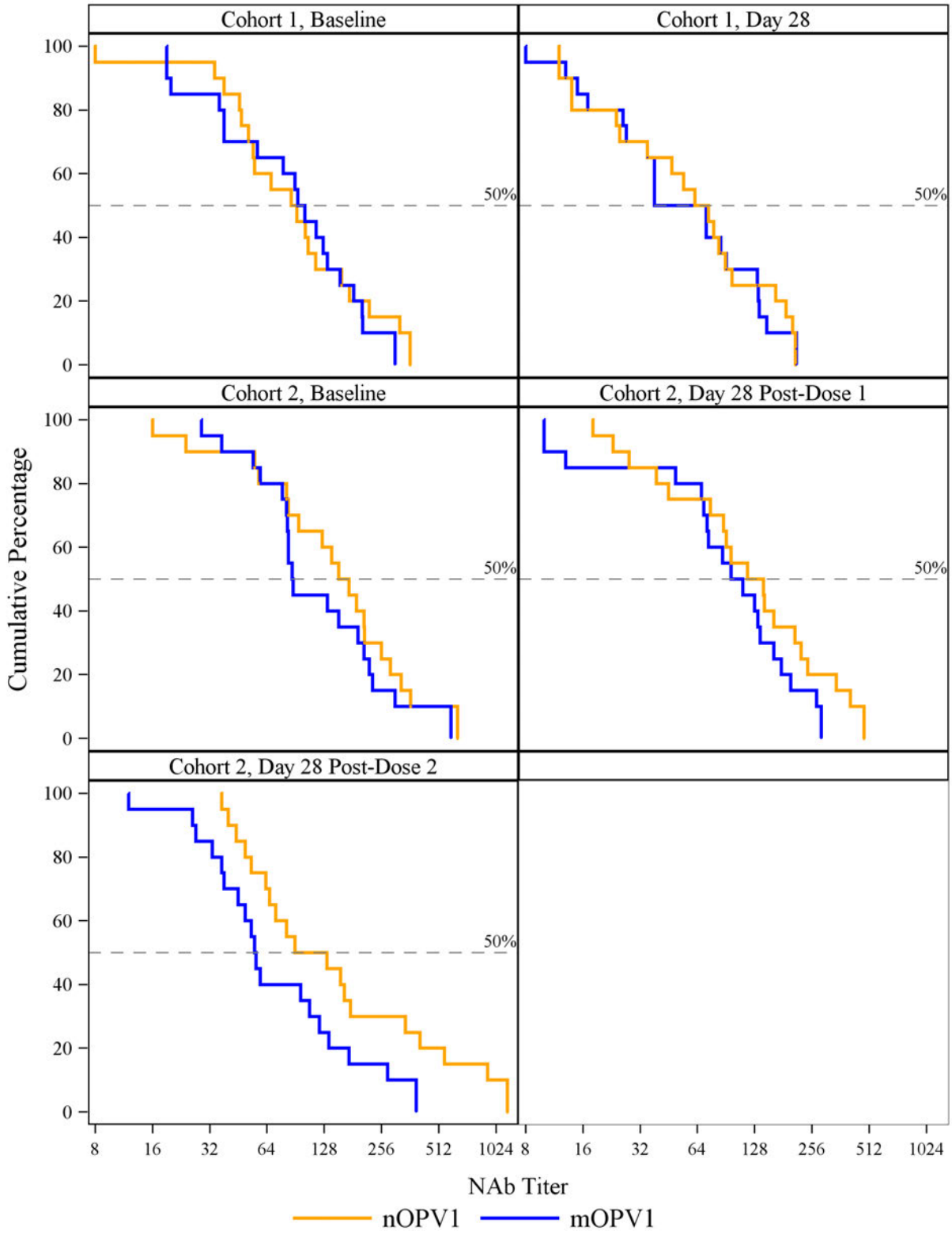
Figure 28: Distribution of Neutralizing Antibody Titers, by Cohort, Visit and Study Vaccination – Per-Protocol Population



Boxes represent interquartile range (IQR).
Horizontal line within the box represents the median.
Whiskers extend to 1.5 x IQR

Programming note: use different colors. Red and green can be confusing for color-blind folks.

Figure 29: Type 1 Neutralizing Antibody Titers, Reverse Cumulative Distribution Curves, by Visit, Cohort and Study Vaccination, Cohorts 1 and 2 – Per-Protocol Population

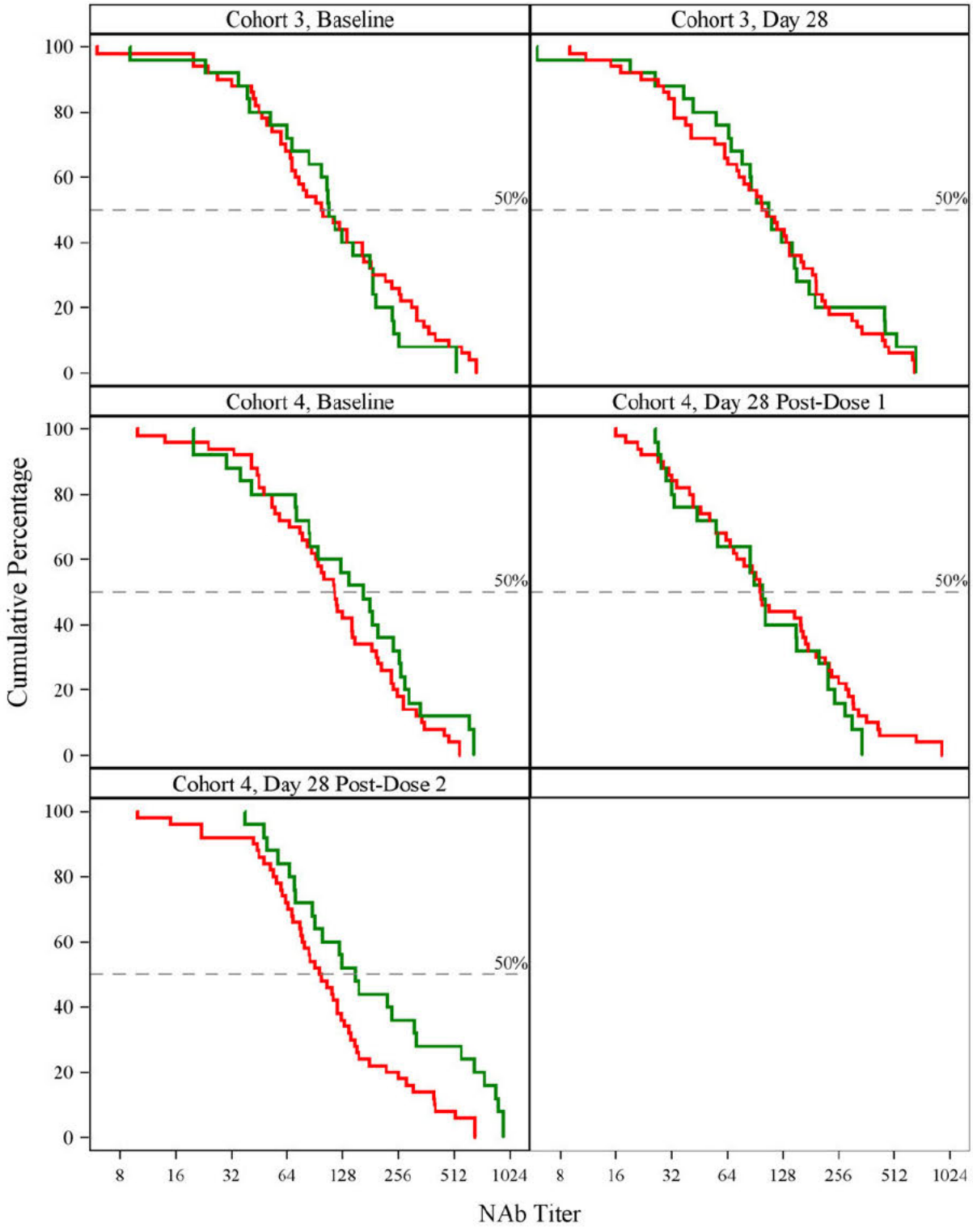


Same format as Figure 29:

Figure 30: Type 2 Neutralizing Antibody Titers, Reverse Cumulative Distribution Curves, by Visit, Cohort and Study Vaccination, Cohorts 1 and 2 – Per-Protocol Population

Figure 31: Type 3 Neutralizing Antibody Titers, Reverse Cumulative Distribution Curves, by Visit, Cohort and Study Vaccination, Cohorts 1 and 2 – Per-Protocol Population

Figure 32: Type 1 Neutralizing Antibody Titers, Reverse Cumulative Distribution Curves, by Visit, Cohort and Study Vaccination, Cohorts 3 and 4 – Per-Protocol Population



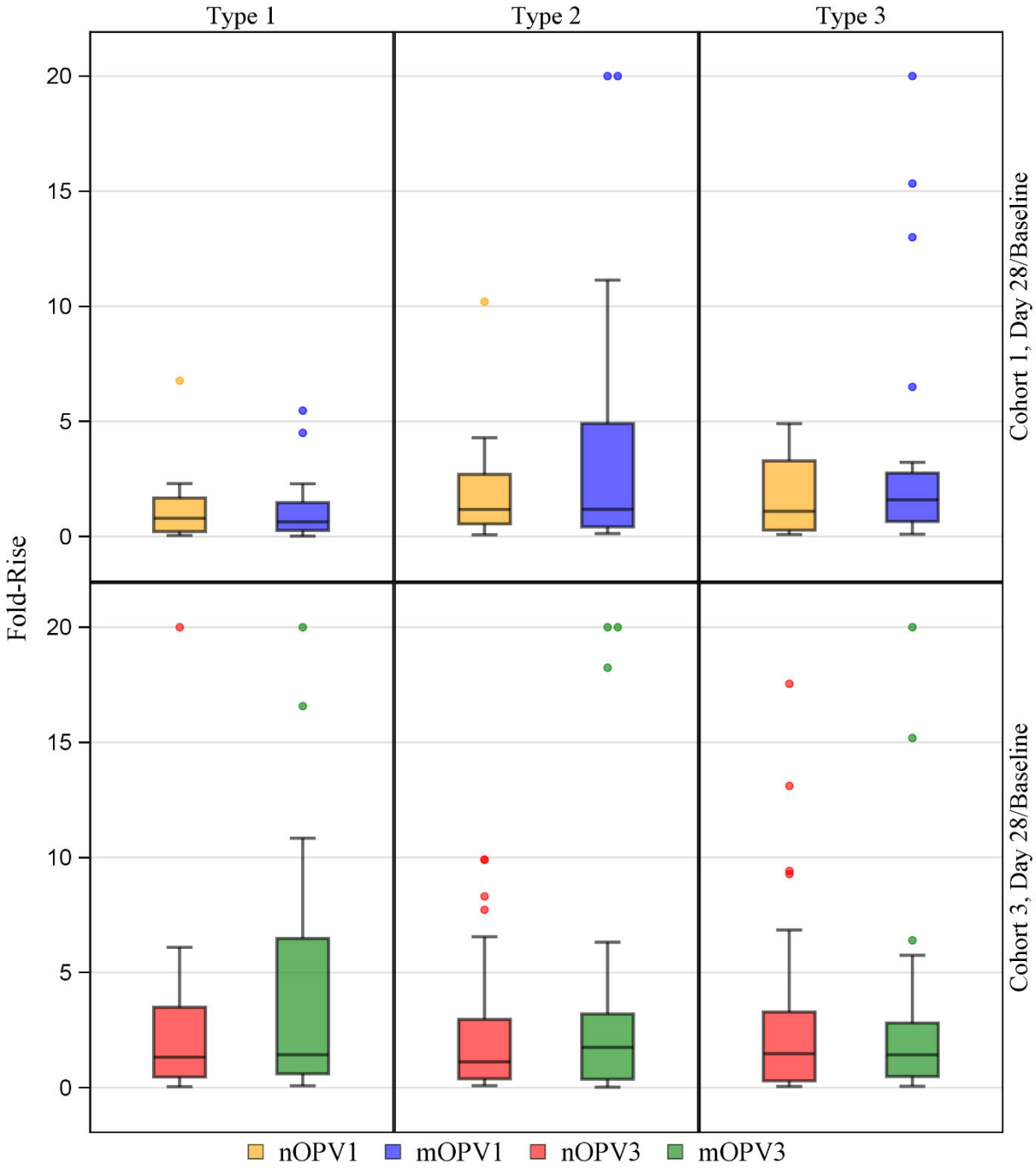
Programming note: use different colors. Red and green can be confusing for color-blind folks.

Same format as Figure 32:

Figure 33: Type 2 Neutralizing Antibody Titers, Reverse Cumulative Distribution Curves, by Visit, Cohort and Study Vaccination, Cohorts 3 and 4 – Per-Protocol Population

Figure 34: Type 3 Neutralizing Antibody Titers, Reverse Cumulative Distribution Curves, by Visit, Cohort and Study Vaccination, Cohorts 3 and 4 – Per-Protocol Population

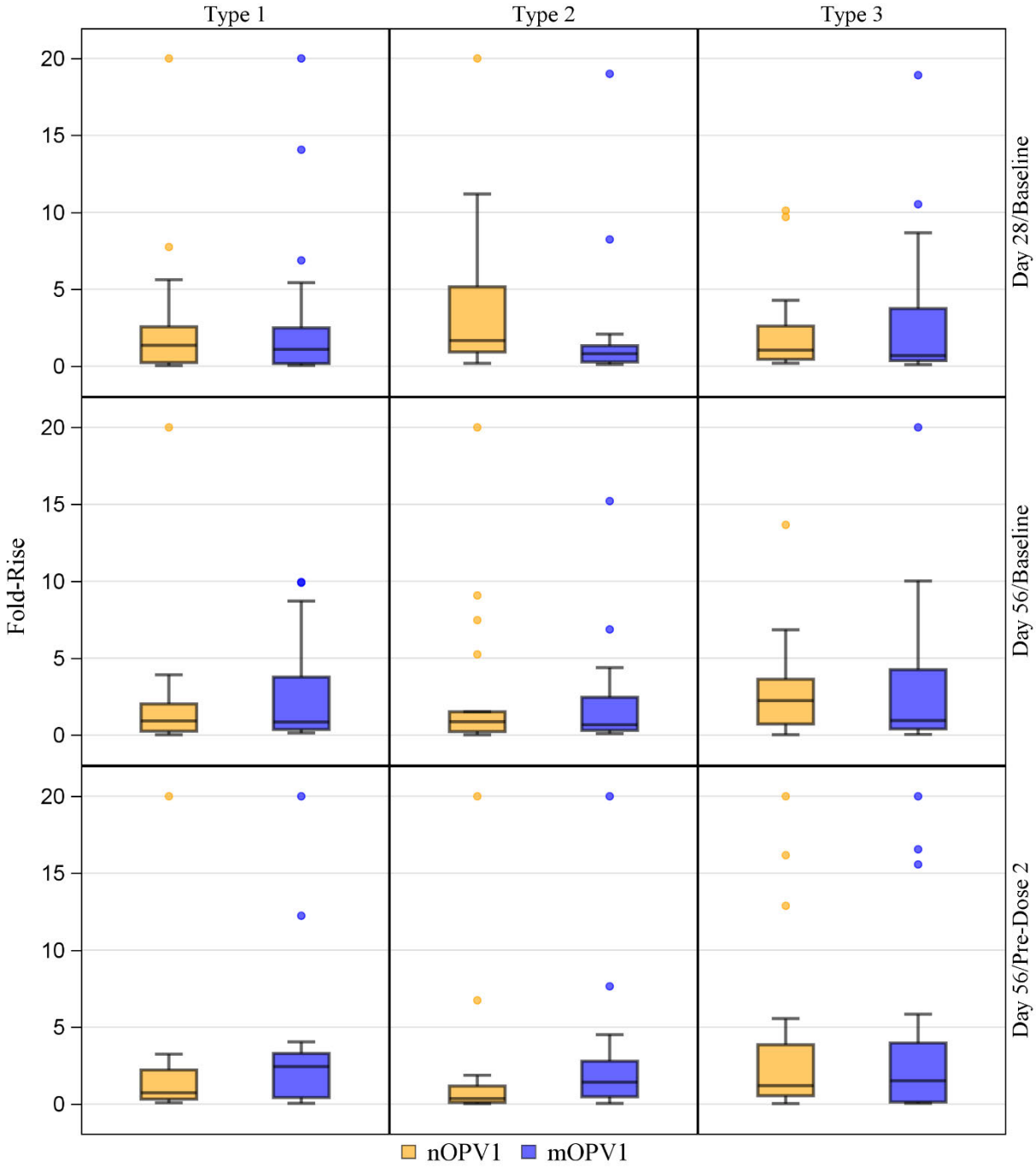
Figure 35: Distribution of Fold-Rise in Types 1 to 3 Neutralizing Antibody Titers in Participants with Prior IPV, by Serotype, Cohort, Visit and Study Vaccination, Cohorts 1 and 3 – Per-Protocol Population



Boxes represent interquartile range (IQR).
Horizontal line within the box represents the median.
Whiskers extend to 1.5 x IQR

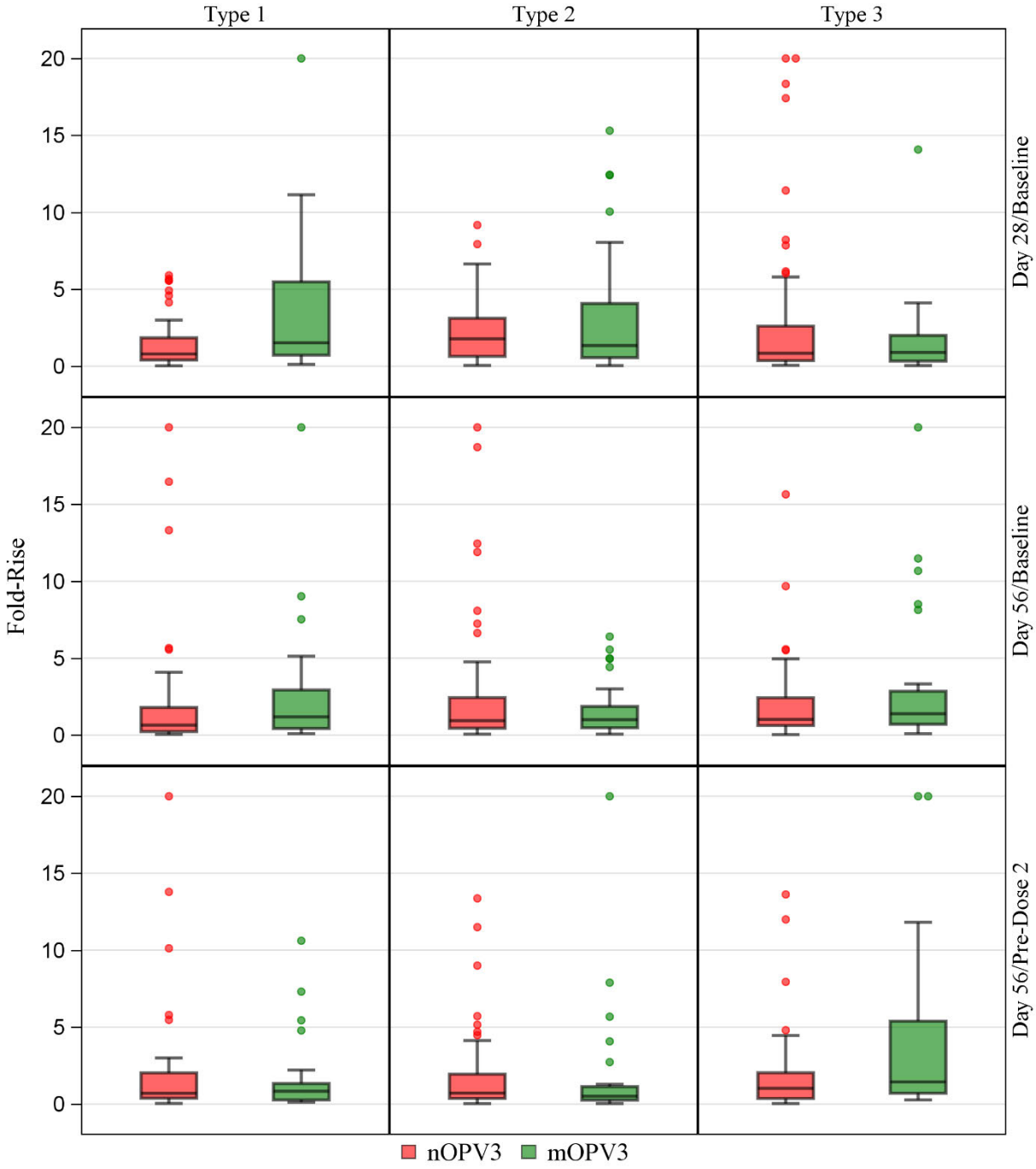
Programming note: use different colors. Red and green can be confusing for color-blind folks.

Figure 36: Distribution of Fold-Rise in Types 1 to 3 Neutralizing Antibody Titers in Participants with Prior OPV, by Serotype, Visit and Study Vaccination, Cohort 2 – Per-Protocol Population



Boxes represent interquartile range (IQR).
Horizontal line within the box represents the median.
Whiskers extend to 1.5 x IQR

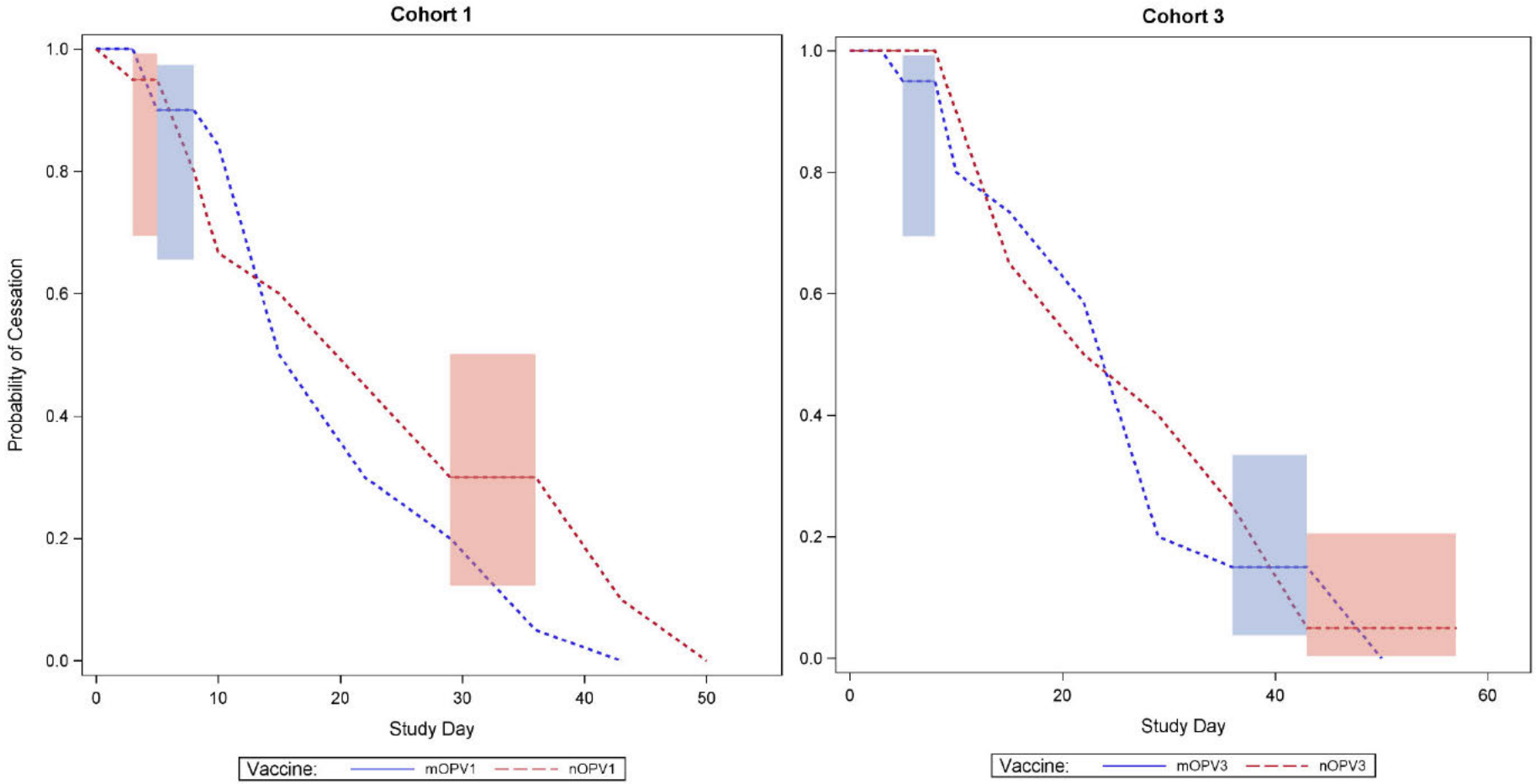
Figure 37: Distribution of Fold-Rise in Types 1 to 3 Neutralizing Antibody Titers in Participants with Prior OPV, by Serotype, Visit and Study Vaccination, Cohort 4 - Per-Protocol Population



Boxes represent interquartile range (IQR).
Horizontal line within the box represents the median.
Whiskers extend to 1.5 x IQR

Programming note: use different colors. Red and green can be confusing for color-blind folks.

Figure 38: Time to Cessation of Fecal Shedding by PCR in Prior IPV Recipients – Safety Population.



Positive shedding is defined as a PCR-positive test.
Each shaded rectangle represents the 95% CI (multiple imputation method) for the point estimates of the probability of cessation within the interval. Dashed lines represent intervals for which the probability of cessation cannot be uniquely determined (called Turnbull Intervals).

Figure 39: Time to Cessation of Fecal Shedding by PCR in Prior OPV Recipients, by Dose – Safety Population.

As above but with 4 graphs.

1. Cohort 2, Post-Dose 1
2. Cohort 4, Post-Dose 1
3. Cohort 2, Post-Dose 2
4. Cohort 4, Post-Dose 2

Positive shedding is defined as a PCR-positive test.
Post-Dose 2 summaries only include participants whose last pre-Dose 2 sample was PCR negative.
Each shaded rectangle represents the 95% CI (multiple imputation method) for the point estimates of the probability of cessation within the interval. Dashed lines represent intervals for which the probability of cessation cannot be uniquely determined (called Turnbull Intervals).

Same format as Figure 38:

Figure 40: Time to Cessation of Fecal Shedding Based on Culture-Positive Results (log_{10} $CCID_{50}$ per gram >2.75) in Prior IPV Recipients – Safety Population.

Positive shedding is defined as log_{10} $CCID_{50}$ per gram >2.75.
Each shaded rectangle represents the 95% CI (multiple imputation method) for the point estimates of the probability of cessation within the interval. Dashed lines represent intervals for which the probability of cessation cannot be uniquely determined (called Turnbull Intervals).

Same format as Figure 39:

Figure 41: Time to Cessation of Fecal Shedding Based on Culture-Positive Results (log_{10} $CCID_{50}$ per gram >2.75) in Prior OPV Recipients, by Dose – Safety Population.

Positive shedding is defined as log_{10} $CCID_{50}$ per gram >2.75.
Post-Dose 2 summaries only include participants whose last pre-Dose 2 sample was culture negative.
Each shaded rectangle represents the 95% CI (multiple imputation method) for the point estimates of the probability of cessation within the interval. Dashed lines represent intervals for which the probability of cessation cannot be uniquely determined (called Turnbull Intervals).

Same format as Figure 38:

Figure 42: Time to Cessation of Fecal Shedding, where shedding is Defined as log_{10} $CCID_{50}$ per gram ≥4.0 in Prior IPV Recipients– Safety Population.

Positive shedding is defined as log_{10} $CCID_{50}$ per gram ≥4.0.
Each shaded rectangle represents the 95% CI (multiple imputation method) for the point estimates of the probability of cessation within the interval. Dashed lines represent intervals for which the probability of cessation cannot be uniquely determined (called Turnbull Intervals).

Same format as Figure 39:

Figure 43: Time to Cessation of Fecal Shedding where shedding is Defined as (log_{10} $CCID_{50}$ per gram ≥4.0) in Prior OPV Recipients, by Dose – Safety Population.

Positive shedding is defined as log_{10} $CCID_{50}$ per gram ≥4.0.
Post-Dose 2 summaries only include participants whose last pre-Dose 2 sample was culture negative.
Each shaded rectangle represents the 95% CI (multiple imputation method) for the point estimates of the probability of cessation within the interval. Dashed lines represent intervals for which the probability of cessation cannot be uniquely determined (called Turnbull Intervals).

Figure 44: Viral Shedding Daily Infectivity, Reverse Cumulative Distribution Curves, by Visit and Vaccine Group – Participants with an exclusive IPV prior Vaccination History – Cohort 1.

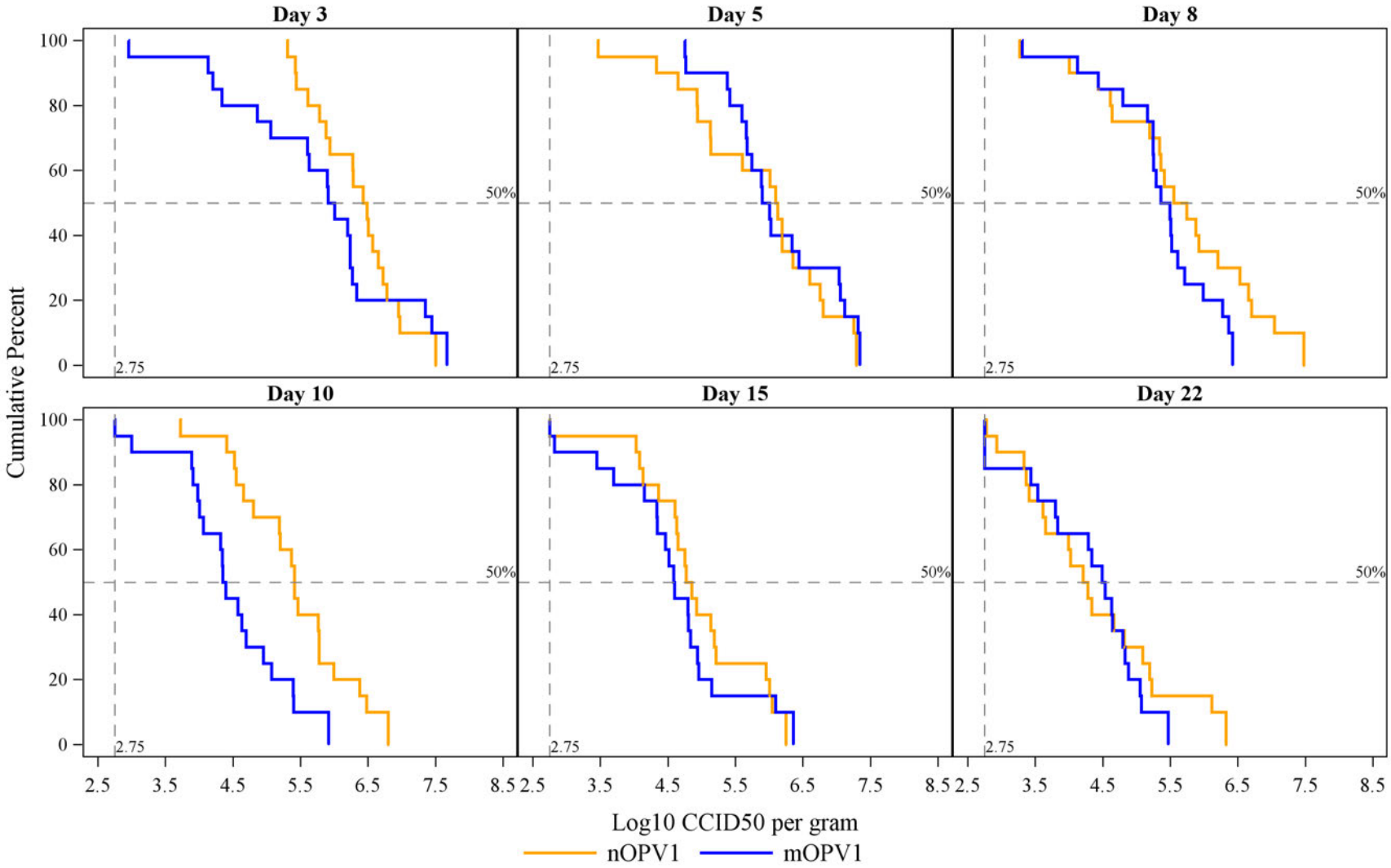


Figure 44 – Cohort 1 Continued

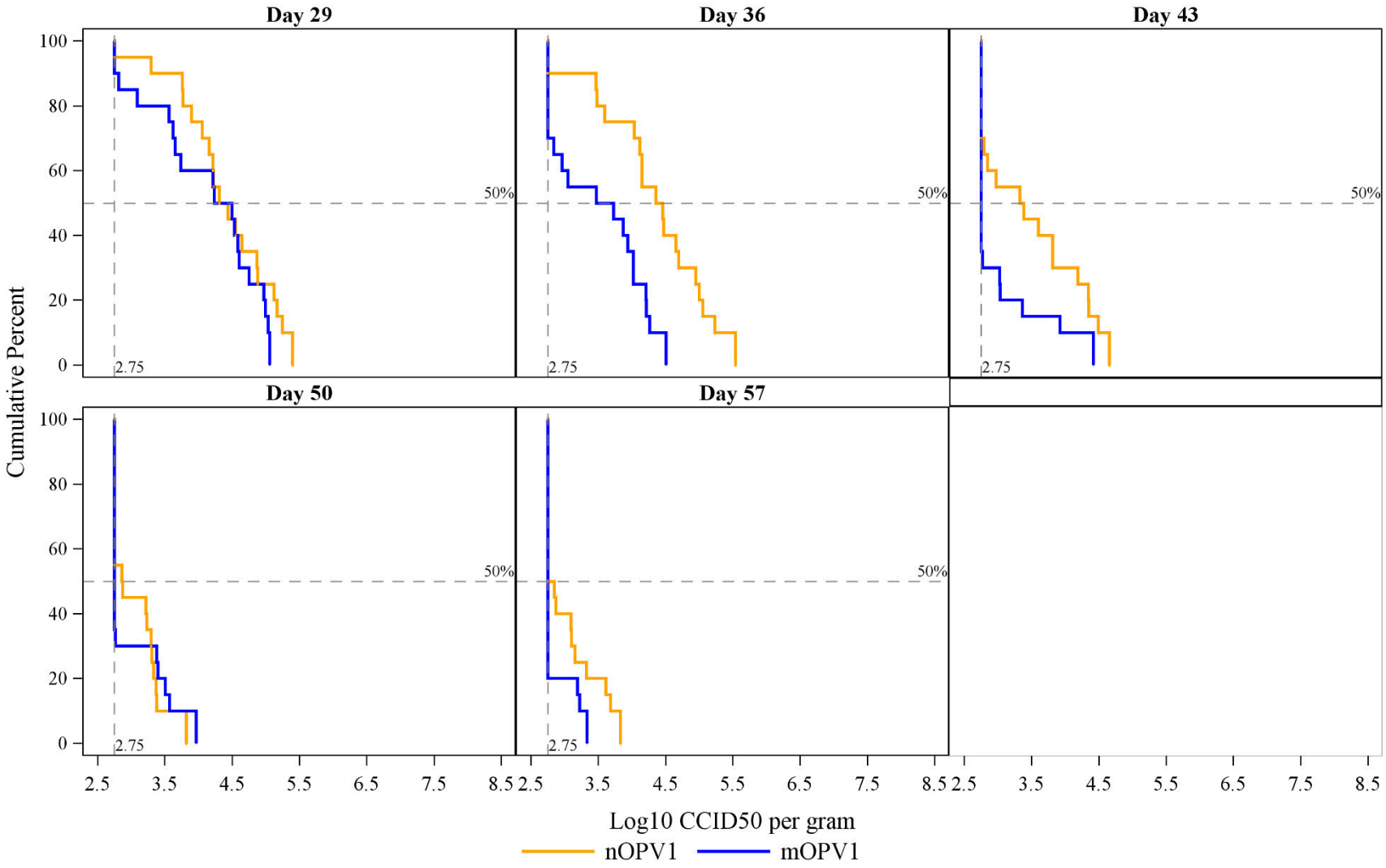


Figure 45: Viral Shedding Daily Infectivity, Reverse Cumulative Distribution Curves, by Visit and Vaccine Group – Participants with an OPV-containing prior vaccination history – Cohort 2.

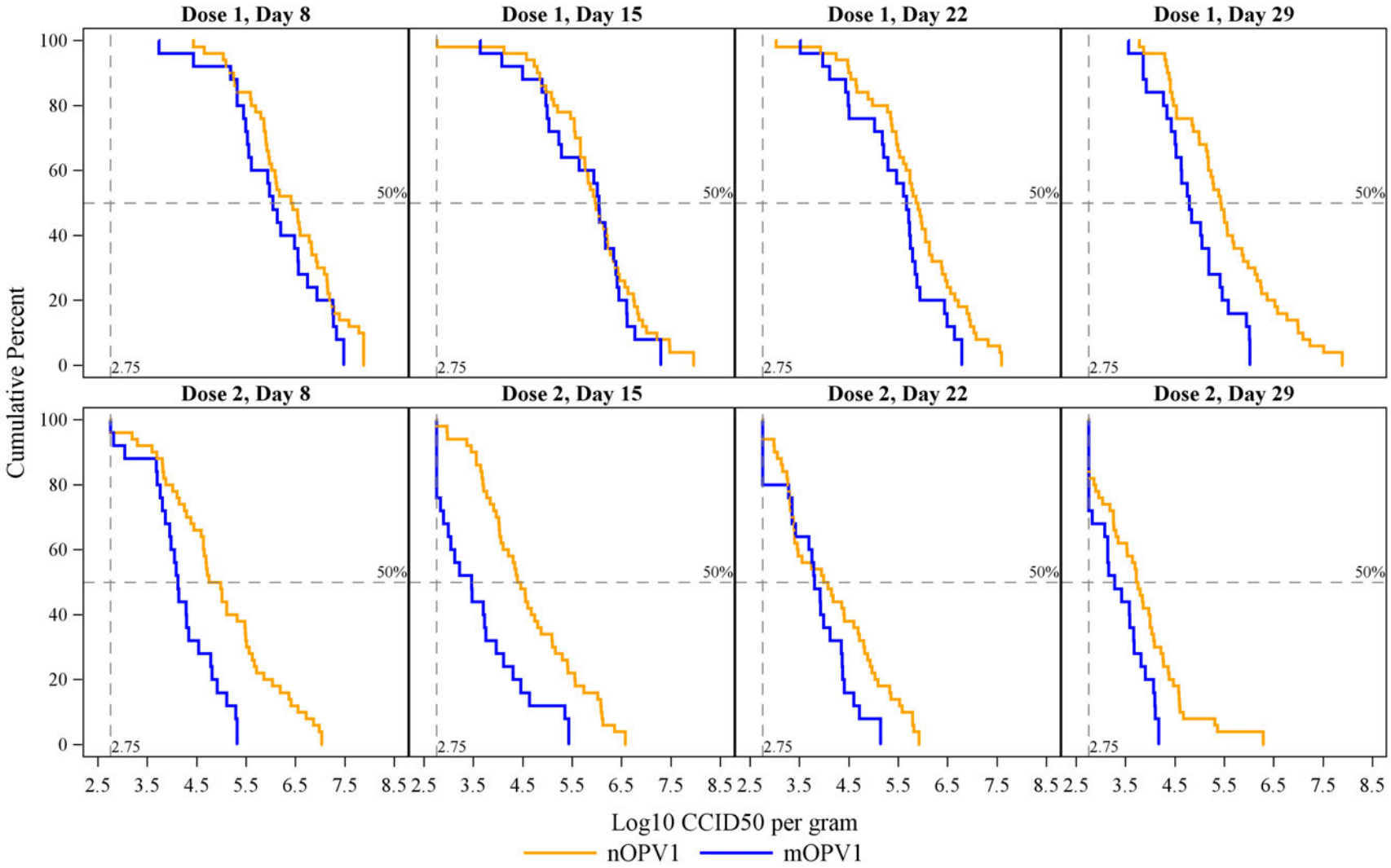
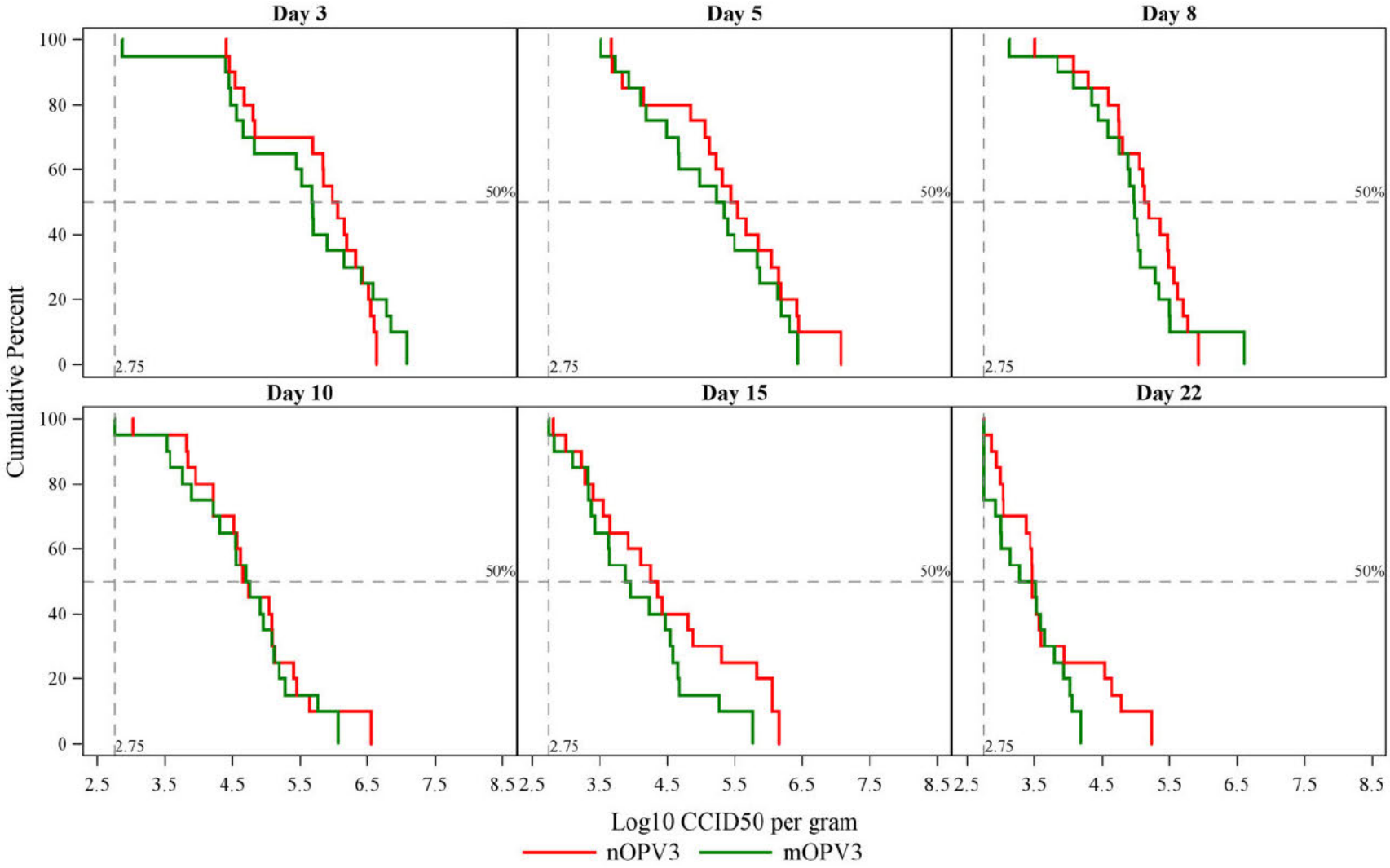
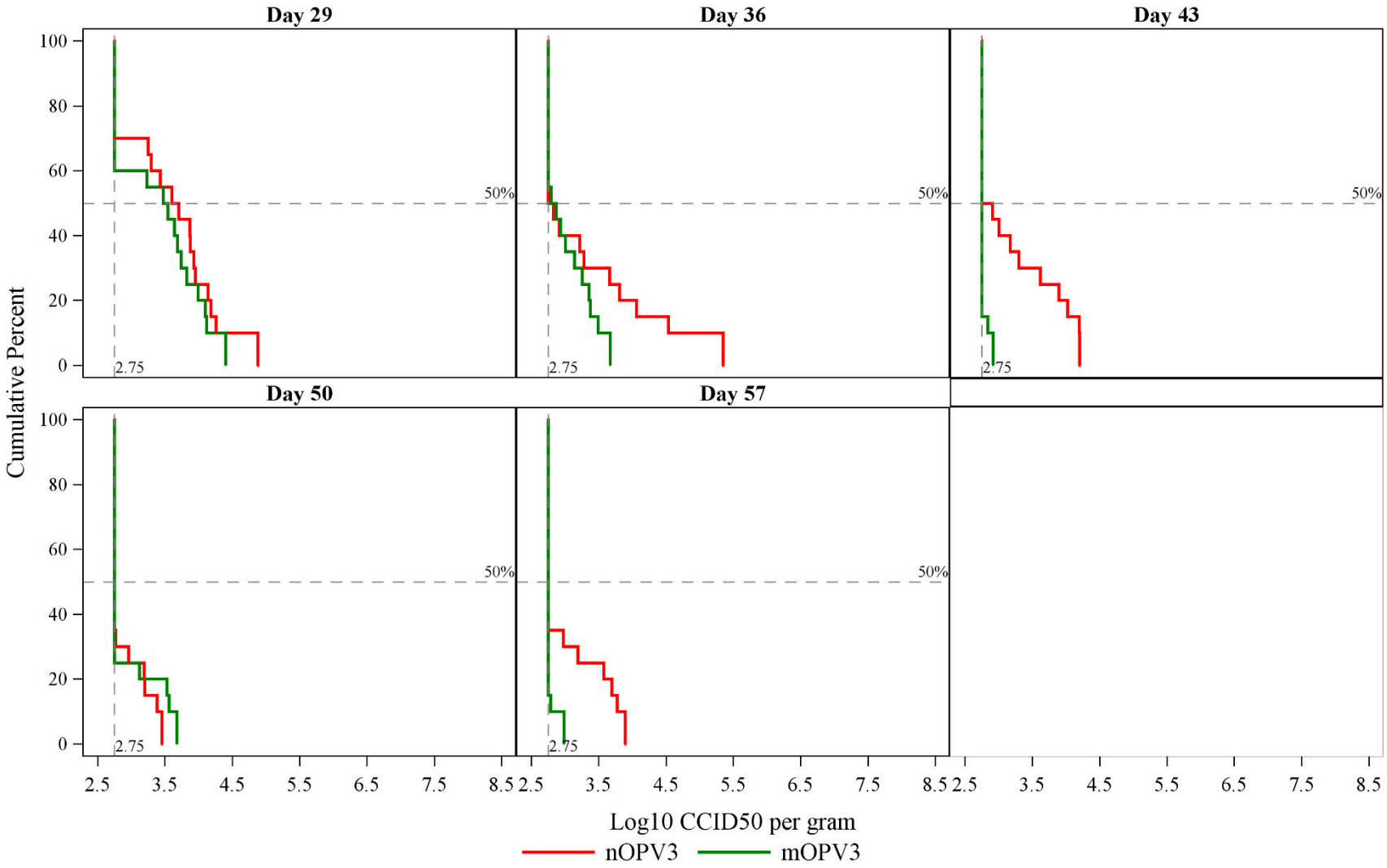


Figure 46: Viral Shedding Daily Infectivity, Reverse Cumulative Distribution Curves, by Visit and Vaccine Group – Participants with an exclusive IPV prior Vaccination History – Cohort 3.



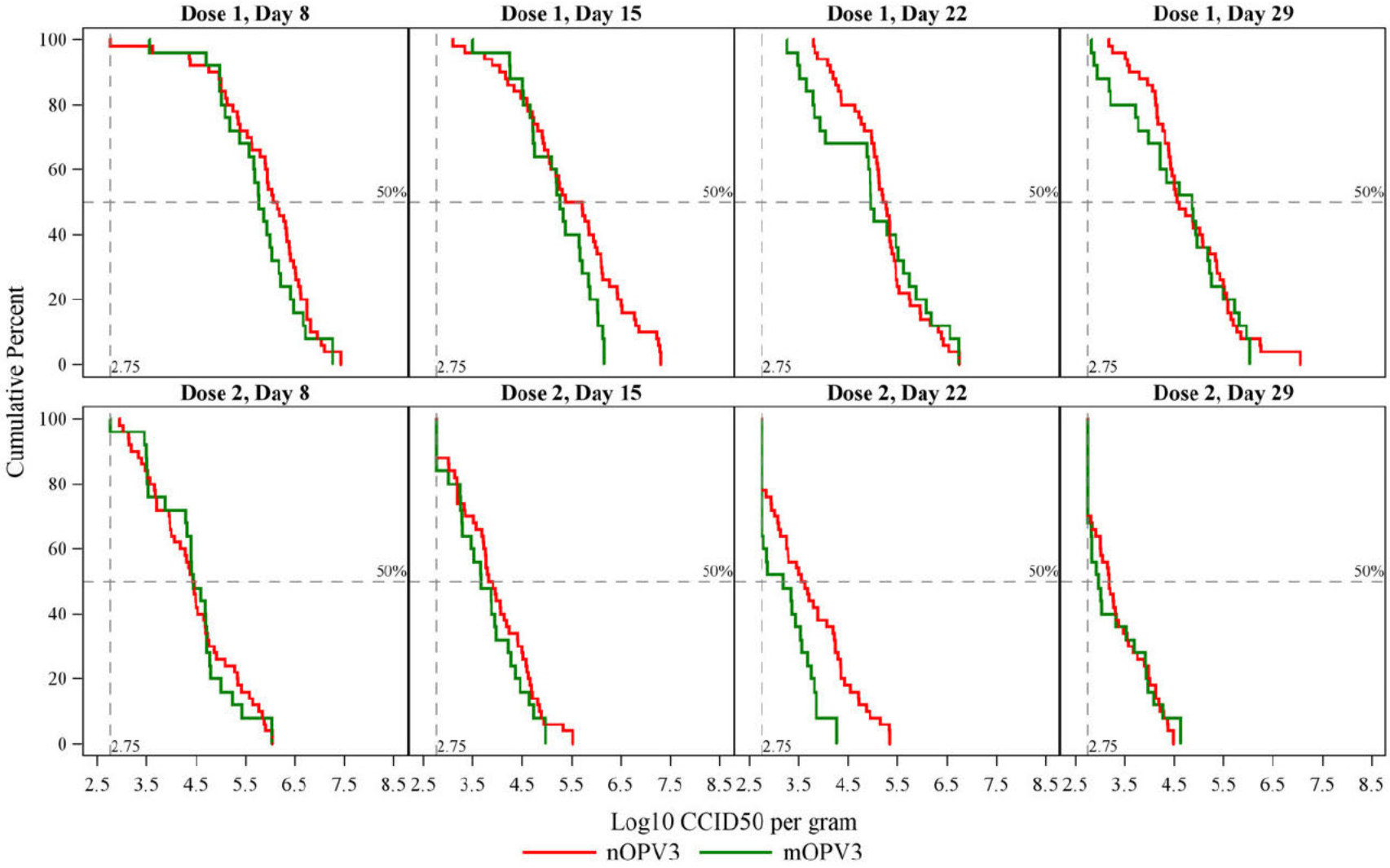
Programming note: color-blind-friendly colors will be used in the final figure.

Figure 46 – Cohort 3 Continued



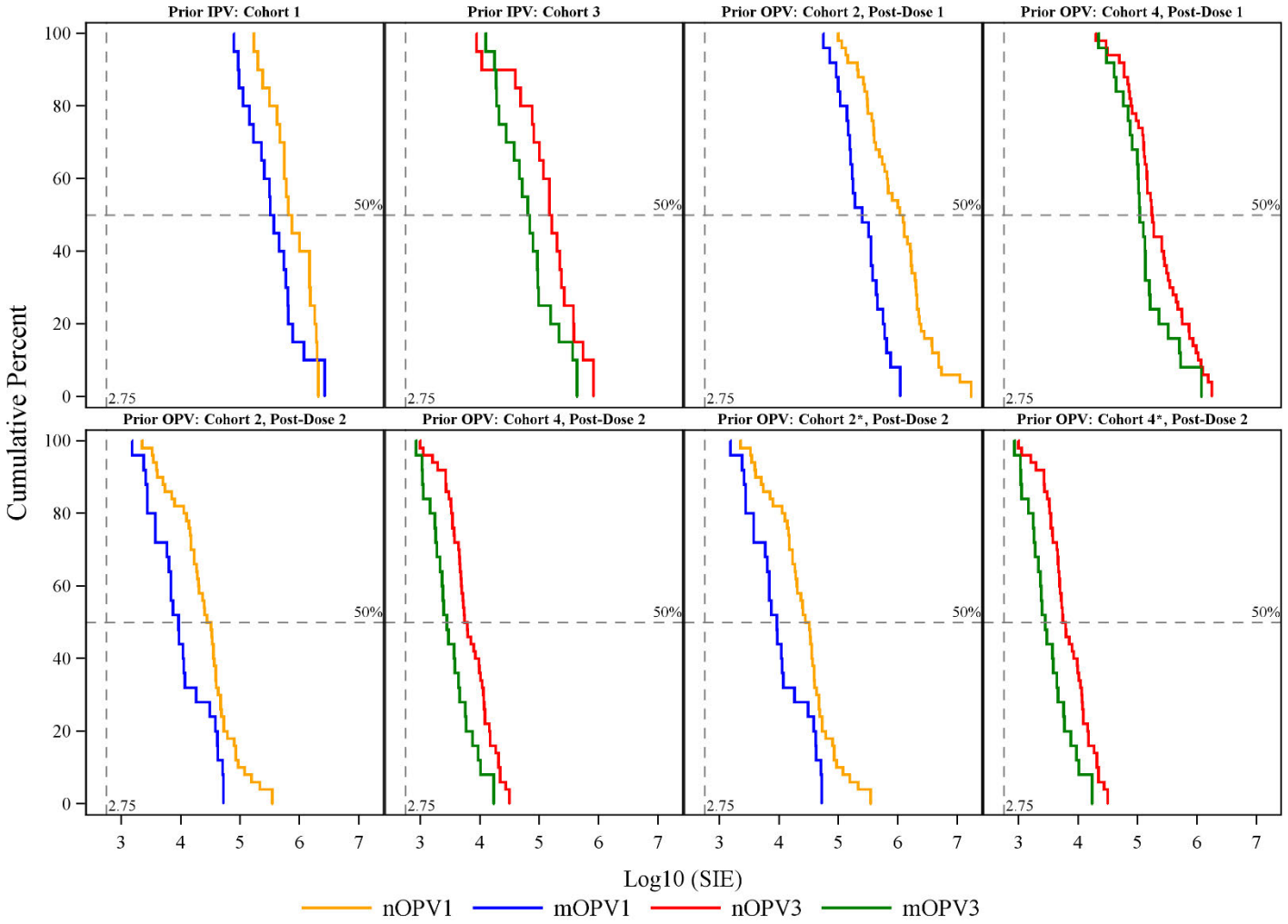
Programming note: color-blind-friendly colors will be used in the final figure.

Figure 47: Viral Shedding Daily Infectivity, Reverse Cumulative Distribution Curves, by Visit and Vaccine Group – Participants with an OPV-containing prior vaccination history – Cohort 4.



Programming note: color-blind-friendly colors will be used in the final figure.

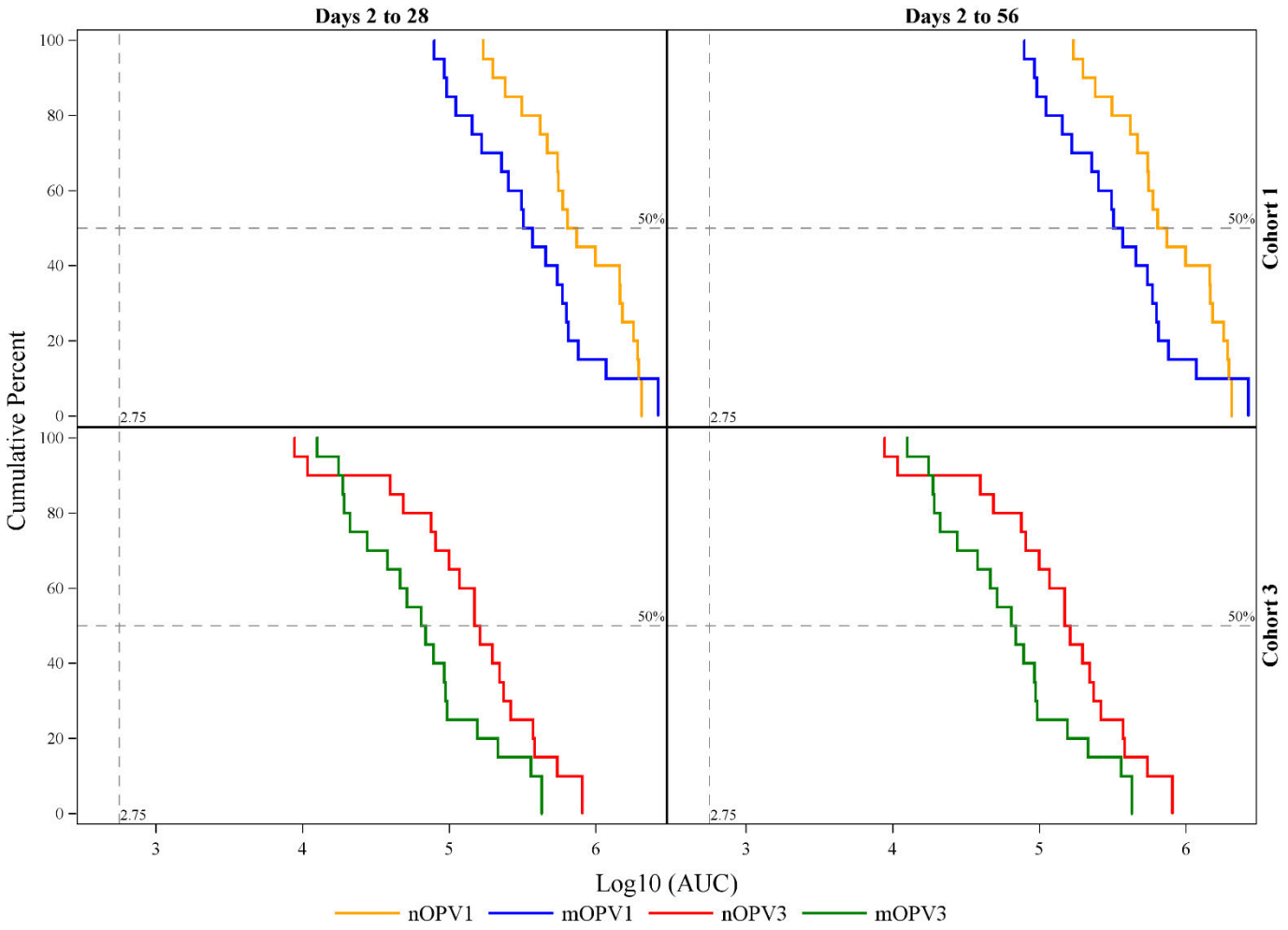
Figure 48: Shedding Index Endpoint (SIE) Reverse Cumulative Distribution Curves – Viral Shedding SIE Populations



Analysis populations are (see Table 7 for definitions):
SIE_1 (0 – 28) for post-dose 1 results
SIE_2 (28 – 56) for post-dose 2 results
* SIE_3 (28 – 56) for post-dose 2 sub-group results

Programming note: color-blind-friendly colors will be used in the final figure.

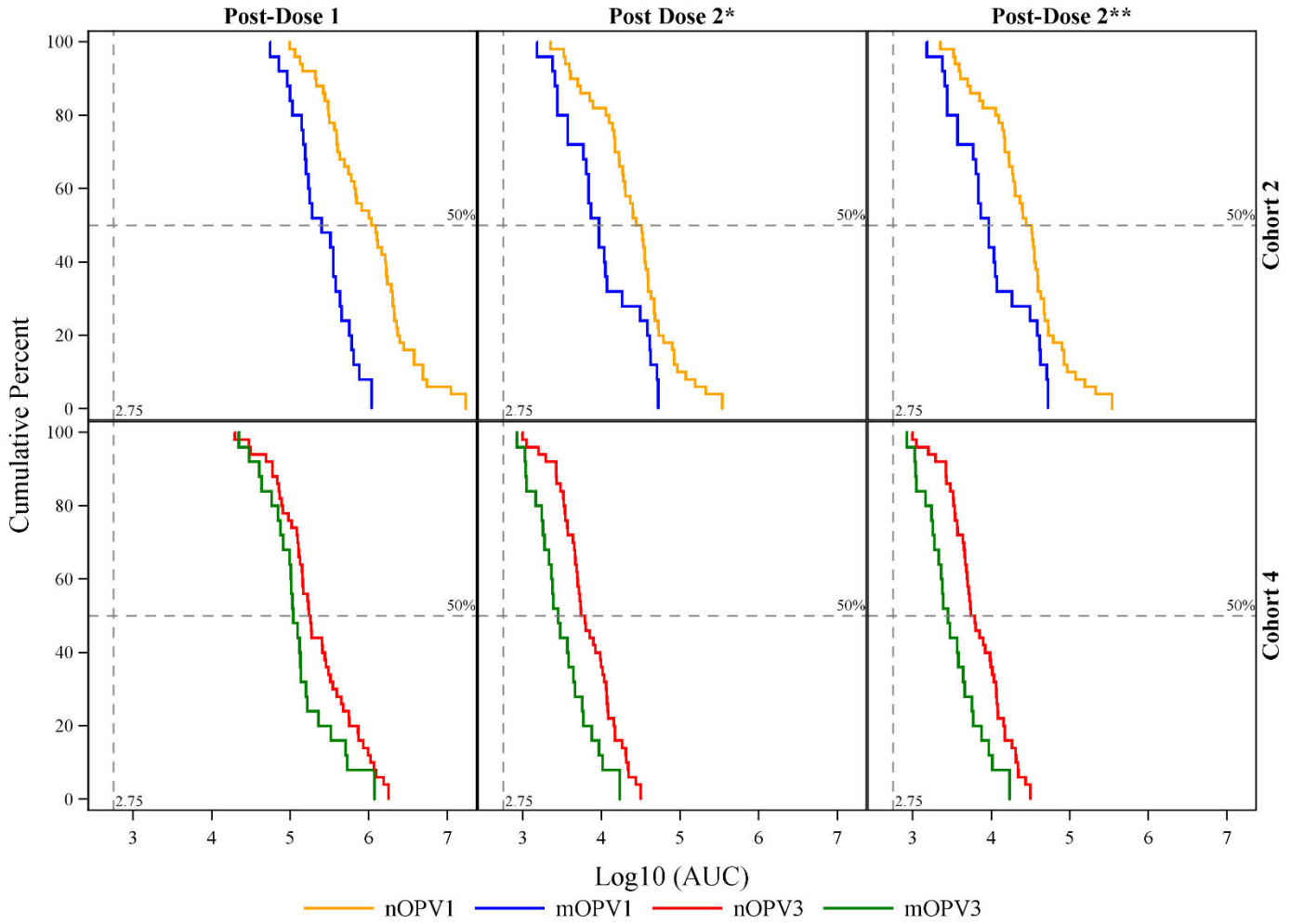
Figure 49: Viral Shedding Area Under the Curve (AUC) Reverse Cumulative Distribution Curves in Prior-IPV Participants - Viral Shedding AUC Populations



Analysis populations are (see Table 7 for definitions):
AUC_2 (0 – 28) for day 2 to 28 results
AUC_3 (0 – 56) for day 2 to 56 results

Programming note: color-blind-friendly colors will be used in the final figure.

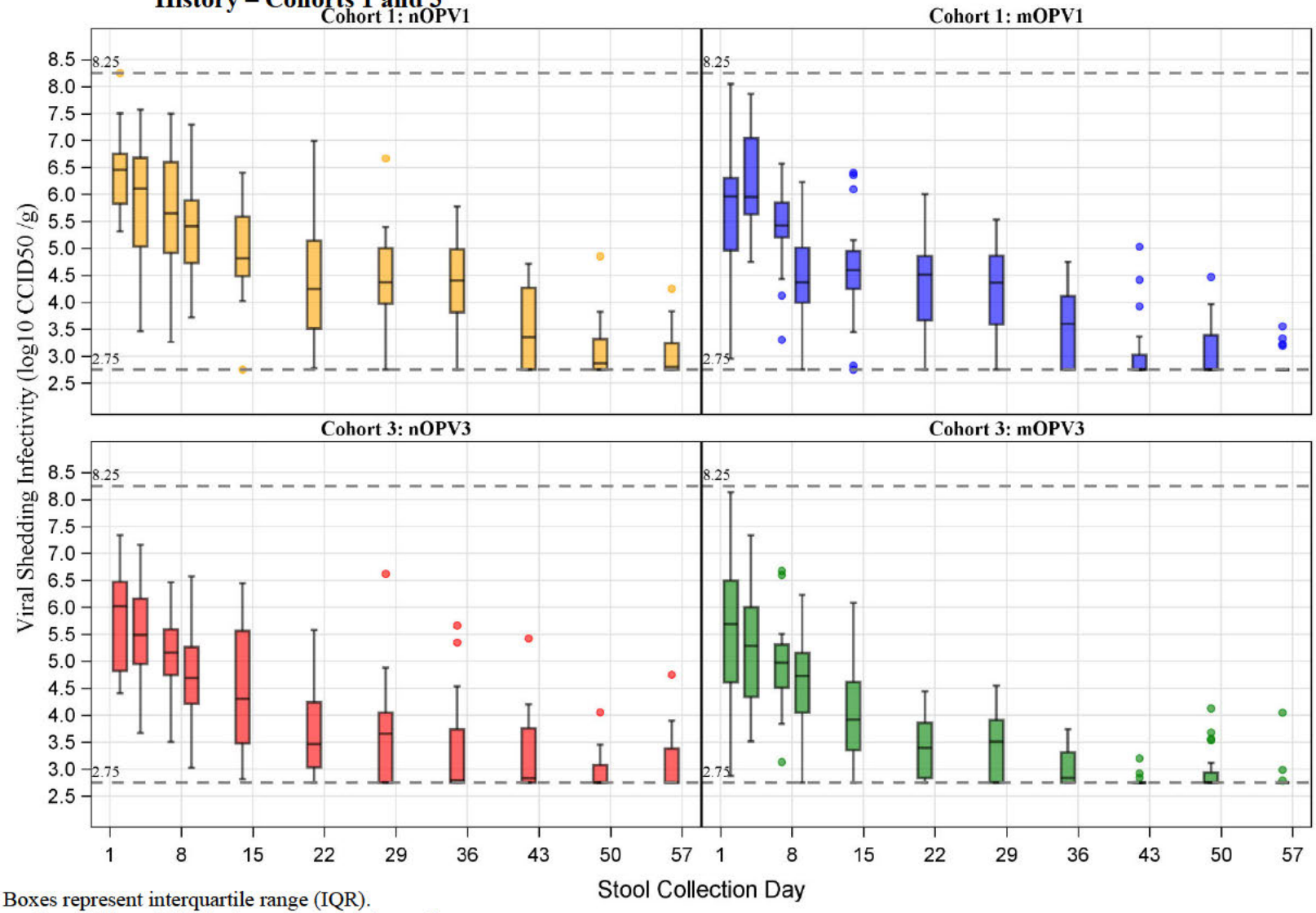
Figure 50: Viral Shedding Area Under the Curve (AUC) Reverse Cumulative Distribution Curves in Prior-OPV Participants - Viral Shedding AUC Populations



Analysis populations are (see Table 7 for definitions):
AUC_1 (0 – 28) for post-dose 1
AUC_4 (28 – 56) for post-dose 2*
AUC_5 (28 – 56) for post-dose 2** (sub-group)

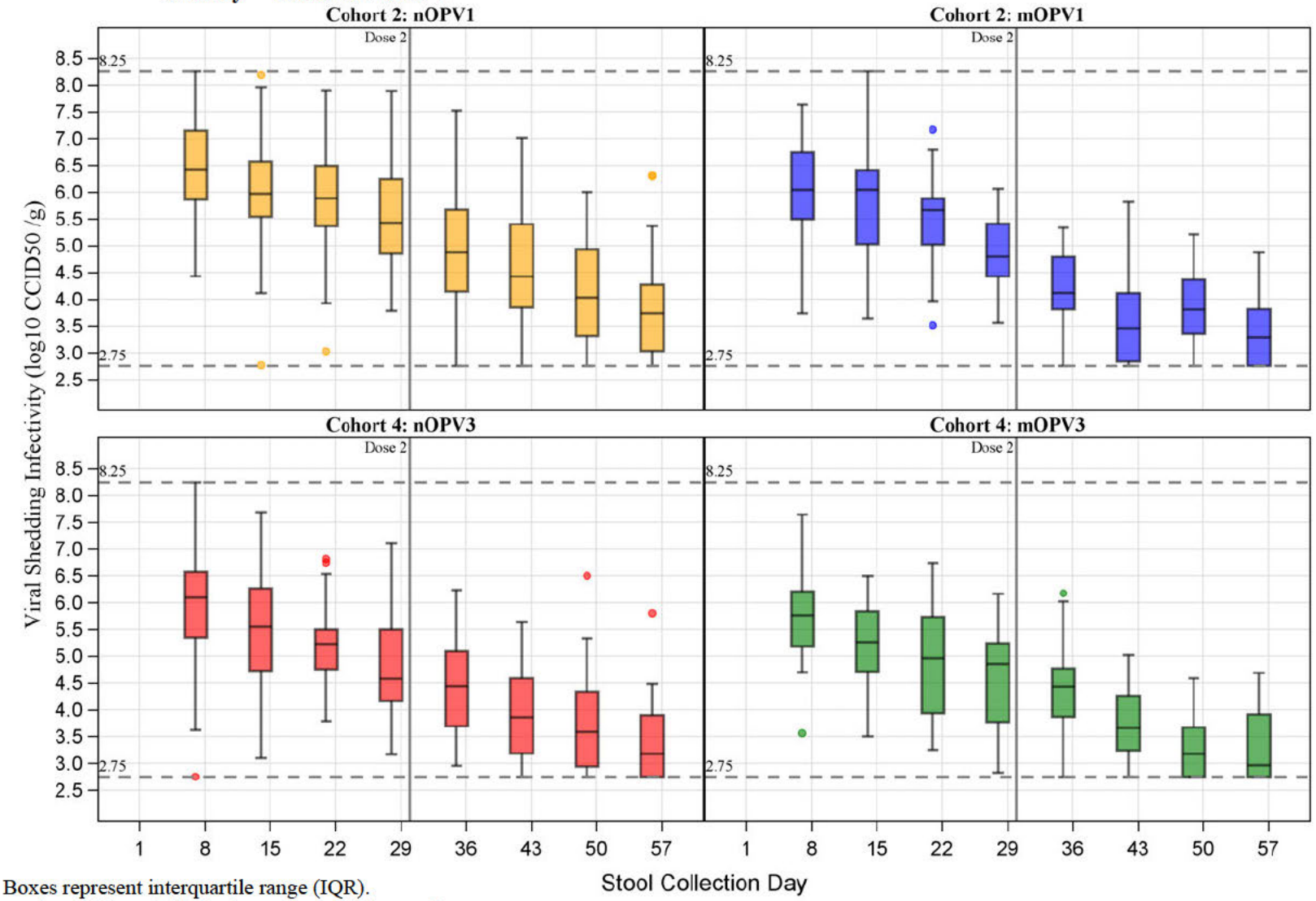
Programming note: color-blind-friendly colors will be used in the final figure.

Figure 51: Fecal Shedding of Virus Over Time, By Cohort and Dose - Participants with an exclusive IPV prior Vaccination History – Cohorts 1 and 3



Boxes represent interquartile range (IQR).
Horizontal line within the box represents the median.
Whiskers extend to 1.5 x IQR

Figure 52: Fecal Shedding of Virus Over Time, By Cohort and Dose - Participants with an exclusive OPV prior Vaccination History – Cohorts 2 and 4



Boxes represent interquartile range (IQR).
Horizontal line within the box represents the median.
Whiskers extend to 1.5 x IQR

17. APPENDIX 3
LISTINGS

LIST OF LISTINGS

Listing 1 Discontinued Participants

Participant ID	Site	Category	Reason for Early Termination or Treatment Discontinuation	Study Visit
Cohort 1, nOPV1				
Cohort 1, mOPV1				
Etc.				

Note: Order by cohort, treatment group, ID. If a participant's treatment was discontinued and they also early terminated, the participant will have two rows, one for discontinuation, one for termination. Note that 'Category' is either Early Termination or Treatment Discontinuation – one row for each if both occurred separately.

Listing 2 Visit Completion

Participant ID	Site	Scheduled Day	Visit Status	Reason for Missed Visit	Blood Collected for NAb	Stool Sample Collected	Physical Exam Conducted
Cohort 1, nOPV1							
			Completed/Missed/ Out of Window		Yes/No/NA	Yes/No/NA	Yes/No
Cohort 1, mOPV1							
Etc.							

Note: Order by cohort, treatment group, ID. If reason for missed visit = 'Other: specify' then include the specifics.

Listing 3 Participant Specific Protocol Deviation

Site	Participant ID	DV Number	Deviation	Deviation Category	Study Visit	Reason for Deviation	Deviation Resulted in AE?	Deviation Resulted in Participant Termination?	Deviation Affected Product Stability?	Deviation Resolution	Major/ Minor	Excluded from PPP
Cohort 1, nOPV1												
Comment:												
Cohort 1, mOPV1												
Etc.												

Note: Order by cohort, treatment group, ID

Listing 4 Non-Participant-Specific Protocol Deviations

Site	Start Date	Deviation	End Date	Reason for Deviation	Deviation Resulted in Participant Termination?	Deviation Affected Product Stability?	Deviation Category	Deviation Resolution	Comments

Note: Order by site and start date

Listing 5 Demographics – Safety Population

Participant ID	Site	Sex	Age at Enrollment (years)	Height (cm)	Weight (kg)	Ethnicity	Race	Number of Prior COVID Vaccinations
Cohort 1, nOPV1								
Cohort 1, mOPV1								
Etc.								

Note: Order by cohort, treatment group, ID

Same format as Listing 5

Listing 6 Demographics - Vaccinated Participants Excluded from the Safety Population

Listing 7 Medical History

Participant ID	Site	Medical History Term	Condition Start Date [a]	Condition End Date [a]	Continuing at enrollment	MedDRA System Organ Class	MedDRA Preferred Term
Cohort 1, nOPV1							
			dd/mmm/yyyy	dd/mmm/yyyy	Y/N		
Cohort 1, mOPV1							
Etc.							

XX vaccinated participants (ID1, ID2, …) were excluded from the safety population due to potential transmission events as identified by next generation sequencing of shed virus.

[a] Unknown date parts have been replaced with UNK

Note: Order by cohort, treatment group, ID. Replace each unknown date part with UNK, for example UNK/JUN/1987

Listing 8 Concomitant Medications – Reactogenicity Population

Participant ID	MH # / AE #	Medical History (MH) Term and/or AE Description	Start Date	End date / Ongoing	Date of First Dose	Supporting Details
Cohort 1, nOPV1						
ID #1	MH xxx	Term description				
	AE xxx	AE description				
	Etc.	Etc.				
ID #2						
Etc.						
Repeat as necessary.						
Cohort 1, mOPV1						
Cohort 2, nOPV1						
Cohort 2, mOPV1						
Cohort 3, nOPV3						
Cohort 3, mOPV3						
Cohort 4, nOPV3						
Cohort 4, mOPV3						

XX vaccinated participants (ID1, ID2, …) were excluded from the safety population due to potential transmission events as identified by next generation sequencing of shed virus.

Listing 9 Vaccination Administration

Participant ID	Dose Number	Treatment Assigned	Treatment Administered	Date Administered	Study Day	Reason Not Administered
	1 or 2	nOPV1/mOPV1/ nOPV3/mOPV3	nOPV1/mOPV1/ nOPV3/mOPV3	dd/mmm/yyyy		xxxxx / NA
Cohort 1, nOPV1						
Cohort 1, mOPV1						
Etc.						

XX vaccinated participants (ID1, ID2, …) were excluded from the safety population due to potential transmission events as identified by next generation sequencing of shed virus.

Dose 2 administrations out-of-window (day 29 - 31) are highlighted yellow.

Note: Order by cohort, treatment group, ID.
Day of dose 1 is Day 1.
Dose 2 should be Day 29-31, otherwise it's out-of-window. If there are none then omit the footnote.

Listing 10 Solicited Adverse Events – Reactogenicity Population

Participant ID	Dose Number	Day	Fever (°C)	Chills	Fatigue	Headache	Muscle aches/ Myalgias	Joint aches/ Arthralgias	Nausea	Vomiting	Abdominal pain	Diarrhea
Cohort 1, nOPV1												
ID #1	Dose 1	Day 1										
		Day 2										
		Day 3										
		Day 4										
		Day 5										
		Day 6										
		Day 7										
		Day x[a]										
Etc.												
Cohort 1, mOPV1												
Etc.												
Cohort 2, nOPV1												
ID #1	Dose 1	Day 1										
		Day 2										
		Etc.										
	Dose 2	Day 1										
		Day 2										
		Etc.										
Etc.												

Severity is indicated by color shading: Yellow, Orange and Red for Mild, Moderate and Severe, respectively. No shading indicates no event.

[a] Day of resolution for events ongoing after day 7.

Note: For fever, include temperature. If graded, then include the severity (Mild, Moderate, Severe) in parentheses after the value.

Listing 11 Unsolicited Adverse Events

Cohort 1, Treatment Group: nOPV1 – Safety Population

Participant ID	Event Description	Dose	Onset Day Post-Dose (Duration, Days)	Severity	SAE	Reason(s) for SAE	Related to Study Product?	If Not Related, the Event is Related to[a]	Action Taken with Study Vaccine[b]	Any Medications Taken for this Event	Participant Discontinued Due to AE?	Outcome[c]
ID #1		**1 or 2**			**Y/N**		**Y/N**	**See Code**	**See Code**	**Y/N**	**Y/N**	**See Code**
Comments												
ID #1												
Comments												
Etc.												
Comments												

Severity grade is indicated by yellow (Grade 1), Orange (Grade 2), Red (Grade 3), Purple (Grade 4), Black (Grade 5).

[a] SP = Study procedure. OMC = Other pre-existing medical condition or illness. ODR = Other drug/concomitant medication. CI = Concurrent illness/condition (not pre-existing). ACC = ACC = Accident, trauma or external factors. OTH = Other.

[b] NC = Dose not changed (2 Dose Cohort due second dose). WD = Second vaccine withdrawn. NA = Not applicable.

[c] R = Recovered/resolved without sequelae. RS = Recovered/resolved with sequelae. O = Recovering/resolving. NR = Not recovered/Not resolved. F = Fatal. U = Unknown (the outcome of the AE is not known).

Programming Notes:

Start a new page by Cohort and Dose Group (n = 8).

For Cohorts 1 and 3, exclude the Dose column.

If stop date is unknown, report Stop Day as "Ongoing" and Duration as "NC" (not calculable).
If not related to study product then report "No" and alternate etiology under "Related to Study Product".

Sort the listing by Cohort/Treatment Group, Participant ID, Vaccination Number, Onset day.

Listing 12 Listing of Solicited Adverse Events Ongoing at Day 7 after Any Vaccine Dose, by Study Vaccination – Reactogenicity Population

Study Vaccination	Site[a]	Participant ID	Dose Number	Onset Day[b]	Solicited AE	Duration (days)	Maximum Severity	Comment
nOPV1		000001	Dose 1					
			Dose 2					
		000002	Dose 1					
mOPV1								
nOPV3								
mOPV3								

[a] Site code: UVM = Vermont, DHMC = Dartmouth, UNC = North Carolina, PHR = Pharmaron.

[b] Day 1 = day of vaccine dose. Duration = start date - end date + 1.

Listing 13 Listing of All Non-Serious, Severe, Unsolicited Adverse Events, by MedDRA System Organ Class (SOC) and Preferred Term (PT) – Safety Population

MedDRA SOC and PT	Site[a]	Participant ID	Dose Number	AE Description	Date (Day Post-Dose)		Duration (Days)	Related to Study Product	Outcome [b]	Comment
					Onset	Resolution				
SOC #1, PT #1										
nOPV1		**001**	**1 / 2**					**Y / N**		
		002								
mOPV1										
nOPV3										
mOPV3										
SOC #1, PT #2										
Etc.										
SOC #2, PT #1										
Etc.										

[a] Site code: UVM = Vermont, DHMC = Dartmouth, UNC = North Carolina, PHR = Pharmaron

[b] Outcome: R = Recovered/resolved without sequelae, RS = Recovered/resolved with sequelae, O = Recovering/ resolving, NR = Not recovered/Not resolved, F = Fatal, U = Unknown (the outcome of the AE is not known).

Listing 14 Listing of Non-Serious Unsolicited Adverse Events Related to Study Product, by MedDRA System Organ Class (SOC) and Preferred Term (PT) - Safety Population

MedDRA SOC and PT	Site[a]	Participant ID	Dose Number	AE Description	Date (Day Post-Dose)		Duration (Days)	Severity	Outcome [b]	Comment
					Onset	Resolution				
SOC #1, PT #1										
nOPV1		**001**	**1 / 2**							
		002								
mOPV1										
nOPV3										
mOPV3										
SOC #1, PT #2										
Etc.										
SOC #2, PT #1										
Etc.										

Severity grade is indicated by yellow (Grade 1), Orange (Grade 2), Red (Grade 3).

[a] Site code: UVM = Vermont, DHMC = Dartmouth, UNC = North Carolina, PHR = Pharmaron

[b] Outcome: R = Recovered/resolved without sequelae, RS = Recovered/resolved with sequelae, O = Recovering/ resolving, NR = Not recovered/Not resolved, F = Fatal, U = Unknown (the outcome of the AE is not known).

Listing 15 Listing of Serious Adverse Events, Including Deaths by MedDRA System Organ Class (SOC) and Preferred Term (PT) – Safety Population

MedDRA SOC and PT	Site[a]	Participant ID	Dose Number	AE Description	Date (Day Post-Dose)		Duration (Days)	Severity	Related to Study Product	Outcome [a]	Comment
					Onset	Resolution					
SOC #1, PT #1											
nOPV1		**001**	**1 / 2**						**Y/N**		
		002									
mOPV1											
nOPV3											
mOPV3											
SOC #1, PT #2											
Etc.											
SOC #2, PT #1											
Etc.											

Severity grade is indicated by yellow (Grade 1), Orange (Grade 2), Red (Grade 3), Purple (Grade 4), Black (Grade 5).

[a] Site code: UVM = Vermont, DHMC = Dartmouth, UNC = North Carolina, PHR = Pharmaron

[b] Outcome: R = Recovered/resolved without sequelae, RS = Recovered/resolved with sequelae, O = Recovering/ resolving, NR = Not recovered/Not resolved, F = Fatal, U = Unknown (the outcome of the AE is not known).

Listing 16 Listing of All Unsolicited Adverse Events, by MedDRA System Organ Class (SOC) and Preferred Term (PT) – Vaccinated Participants Excluded from the Safety Population

MedDRA SOC and PT	Site[a]	Participant ID	Dose Number	AE Description	Date (Day Post-Dose)		Duration (Days)	Related to Study Product	Outcome[b]	Comment
					Onset	Resolution				
SOC #1, PT #1										
nOPV1		**001**	**1 / 2**					**Y / N**		
		002								
mOPV1										
nOPV3										
mOPV3										
SOC #1, PT #2										
Etc.										
SOC #2, PT #1										
Etc.										
XX vaccinated participants (ID1, ID2, …) were excluded from the safety population due to potential transmission events as identified by next generation sequencing of shed virus. [a] Site code: UVM = Vermont, DHMC = Dartmouth, UNC = North Carolina, PHR = Pharmaron [b] Outcome: R = Recovered/resolved without sequelae, RS = Recovered/resolved with sequelae, O = Recovering/ resolving, NR = Not recovered/Not resolved, F = Fatal, U = Unknown (the outcome of the AE is not known).										

Listing 17 Clinical Laboratory Values – Reactogenicity Population

Participant ID	Visit #	Day Post-Dose	Hematology									Chemistry		
			Hgb (gm/dL)	Change from Baseline Hgb (gm/dL)	Hemato-crit (%)	Platelets (K/cmm)	WBC Increase (K/cmm)	WBC Decrease (K/cmm)	Neutro-phils (K/cmm)	Lympho-cytes (K/cmm)	Eosino-phils (K/cmm)	Creat-inine (mg/dL)	ALT (U/L)	Total Bilirubin (mg/dL)
Cohort 1, nOPV1														
ID #1	00	Scr.												
	01	1												
	04	8												
ID #2														
Etc.														
Repeat as necessary														
Cohort 1, mOPV1														
Cohort 2, nOPV1														
Cohort 2, mOPV1														
Cohort 3, nOPV3														
Cohort 3, mOPV3														
Cohort 4, nOPV3														
Cohort 4, mOPV3														

All abnormal lab values are graded, except for abnormal Hematocrit values, which are not graded.

Programming Note: data from any unscheduled visits will be included. Within participant ID sort the rows by date/time. If graded, then include the severity (Mild, Moderate, Severe) in parentheses after the value.

Listing 18 Vital Signs – Reactogenicity Population

Participant ID	Time Point	Actual Study Day	Temperature (°F)	Systolic Blood Pressure (mmHg)	Diastolic Blood Pressure (mmHg)	Pulse Rate (beats/min)	Respiratory Rate (breaths/min)
Cohort 1, nOPV1							
Cohort 1, mOPV1							
Cohort 2, nOPV1							
Etc.							

XX vaccinated participants (ID1, ID2, …) were excluded from the safety population due to potential transmission events as identified by next generation sequencing of shed virus.

Listing 19 Physical Exam Findings – Reactogenicity Population

Participant ID	Visit Number	Actual Study Day	Body System	Abnormal Finding	Clinically Significant?
Cohort 1, nOPV1					
ID #1	Baseline				Y/N
Etc.					
Cohort 1, mOPV1					
ID #1	Baseline				
Etc.					

XX vaccinated participants (ID1, ID2, …) were excluded from the safety population due to potential transmission events as identified by next generation sequencing of shed virus.

Listing 20 Immunogenicity – Neutralizing Antibody Titer – Full Analysis Population

Participant ID	Included in PPP or SAPPP	Scheduled Study Day	Actual Day	Titer	Seropositive	Fold Rise from Baseline		Fold Rise from Pre-Dose 2	
						Fold-Rise	Seroconversion	Fold-Rise	Seroconversion
Cohort 1, nOPV1									
ID #1	PPP	Screening	-xx	xxxx	Y/N	NA	NA	NA	NA
		Day 29	xx	xxxx	Y/N	xx.x	Y/N	NA	NA
ID #2	SAPPP	Screening							
		Day 29							
Etc.	Etc.								
Cohort 1, mOPV1									
ID #1		Screening	-xx	xxxx	Y/N	NA	NA	NA	NA
		Day 29	xx	xxxx	Y/N	xx.x	Y/N	NA	NA
Cohort 2, nOPV1									
ID #1		Screening	-xx	xxxx	Y/N	NA	NA	NA	NA
		Day 29	xx	xxxx	Y/N	xx.x	Y/N	xx.x	Y/N
		Day 57	xx	xxxx	Y/N	xx.x	Y/N	xx.x	Y/N
Etc.		Screening							
		Day 29							
		Day 57							
Etc.									

PPP is defined by inclusion in the day 29 analysis.

Note: Order by cohort, treatment group, ID, Day. Include all data from unscheduled visits.

Listing 21 Viral Shedding PCR-Positivity and Infectivity (log_{10} $CCID_{50}$ per gram)

Cohort, Treatment Group	Participant ID	Scheduled Collection Day	Actual Collection Day	Value (log_{10} $CCID_{50}$ per g)	PCR Positive/Negative
Cohort 1, nOPV1	######	3			
		5			
		8 – 9			
		10			
		15			
		22			
		29 – 31			
		36			
		43			
		50			
		57			
Cohort 1, mOPV1	######				
Cohort 2, nOPV1	######	8 -9			
		15			
		22			
		29 – 31			
		36 – 37			
		43			
		50			
		57 - 59			
Cohort 2, mOPV1	######				

Cohort, Treatment Group	Participant ID	Scheduled Collection Day	Actual Collection Day	Value (log_{10} $CCID_{50}$ per g)	PCR Positive/Negative
Cohort 3, nOPV3	######				
Cohort 3, mOPV3	######				
Cohort 4, nOPV3	######				
Cohort 4, mOPV3	######				

XX vaccinated participants (ID1, ID2, …) were excluded from the viral shedding population due to potential transmission events as identified by next generation sequencing of shed virus.

Programming note: Include all results. Exclude missed visits. If outside scheduled day window then leave scheduled day blank..

Listing 22 Birth Control – Female Participants

Participant ID	Cohort	Treatment Group	Childbearing Potential	If No, Reason	Date of LMP [a, b]	Birth Control Method Code	Start Date [b]	End Date [b]	Ongoing
			Y/N		dd/mmm/yyyy		dd/mmm/yyyy	dd/mmm/yyyy	Y/N

Birth Control Method Code

1 – Abstinence from penile-vaginal intercourse
2 – Combined estrogen and progesterone oral contraceptives
3 – Hormonal (e.g. progestogen) injections
4 – Hormonal (e.g. etonogestrel or levonorgestrel) implants
5 – Contraceptive vaginal ring
6 – Percutaneous contraceptive patches
7 – Intrauterine device
8 – Intrauterine hormonal system
9 – Male condom with vaginal spermicide (foam, gel, film, cream, or suppository)
10 – Progesterone alone oral contraceptive
11 – Monogamous relationship with vasectomized (≥ 180 days prior to enrollment) partner

[a] Last menstrual period.

[b] Unknown date parts have been replaced with UNK

Note: Order by cohort, treatment group, ID. Replace each unknown date part with UNK, for example UNK/JUN/1987, If date is unknown, report Unknown.

Listing 23 Pregnancy Report - Maternal Information

					Estimated Delivery			Pre-Pregnancy Weight		Pregnancy Outcome		
Participant ID	**Date Pregnancy Reported**	**Pregnancy Status**	**Number of Fetuses**	**Date of LMP [a]**	**Date**	**Method of Estimation**	**If Ultrasound, Date of Exam**	**Date [b] Measured**	**Weight (units)**	**Outcome**	**Congenital Anomalies**	**Maternal Complications**
Cohort 1, nOPV1 (include as appropriate)												
		Ongoing/ Known/ Unknown				LMP/ Ultrasound					Y/N	Yes/No/ Unknown

[a] Last menstrual period.

[b] Unknown date parts have been replaced with UNK

Listing 24 Previous Pregnancy Information Reported at Time of Initial Pregnancy Report

Participant ID	**Gravida [a]**	**Preterm (PT)**				**Term Births (TB)**				**Still Births**	**Spontaneous Abortion/ Miscarriage**	**Elective Abortions**	**Therapeutic Abortions**	**Major Congenital Anomaly with Previous Pregnancy?**
		Extremely	**Very**	**Early**	**Late**	**Early**	**Full**	**Late**	**Post TB**					
Cohort 1, nOPV1 (include as appropriate)														

[a]: Gravida includes the current pregnancy