

# CoVPN COVID-19 Correlates Analysis

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# Chapter 1

## Graphical Description of Immunogenicity Data

### 1.1 Pairs plots of antibody markers for overall per-protocol cohort

#### 1.1.1 Baseline SARS-CoV-2 Negative

\begin{figure}[ht]

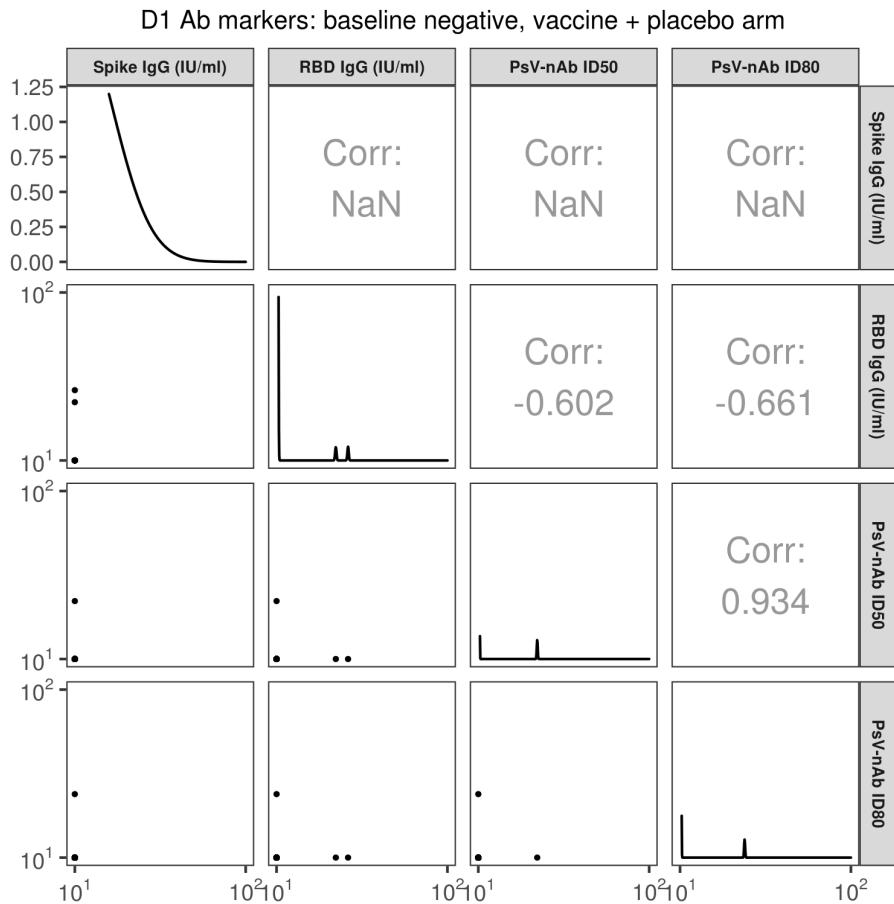
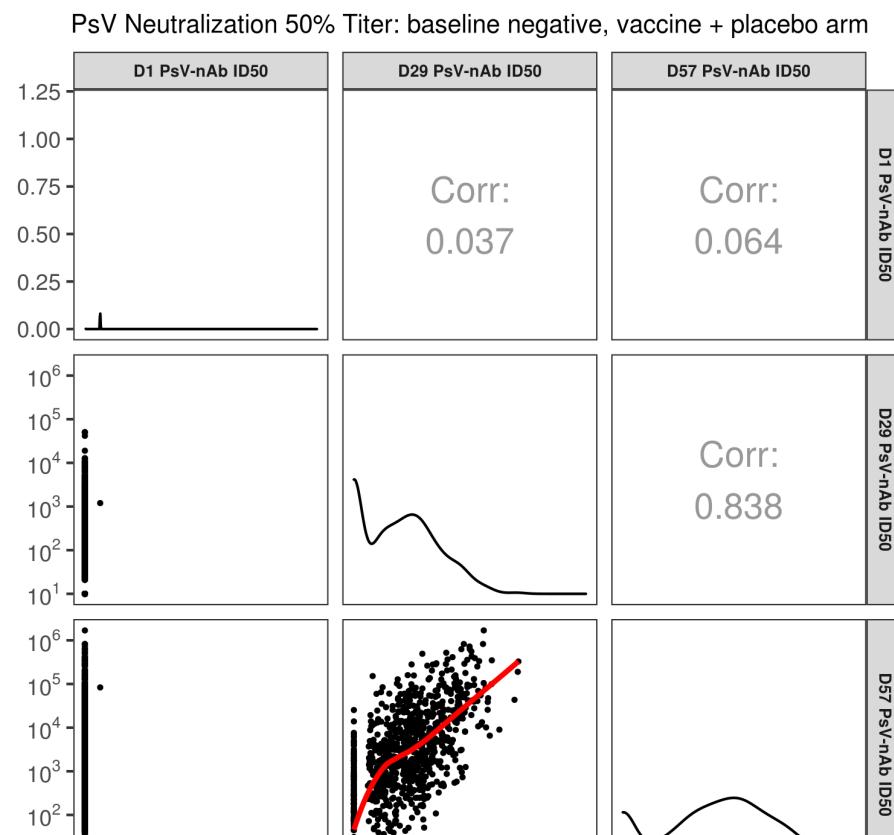


Figure 1.1: (Mock data) Pair plots of D1 Ab markers: baseline negative vaccine + placebo arms



## 1.1. PAIRS PLOTS OF ANTIBODY MARKERS FOR OVERALL PER-PROTOCOL COHORT19

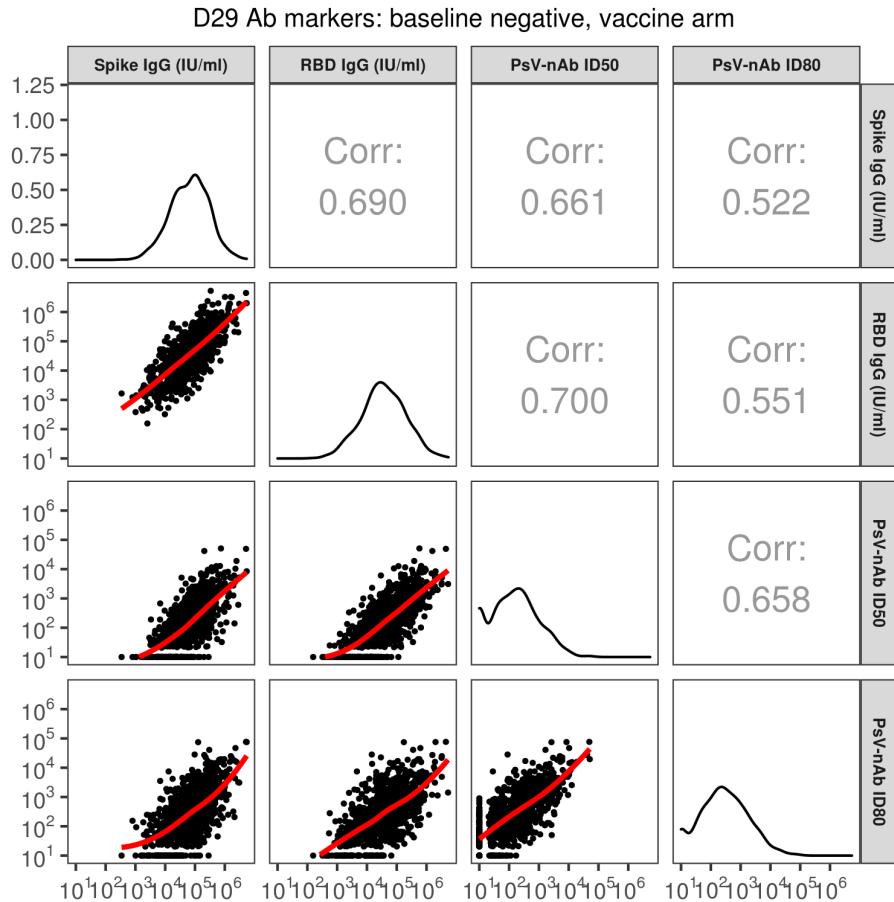


Figure 1.2: (Mock data) Pair plots of D29 Ab markers: baseline negative vaccine arm

}

\caption{(Mock data) Pair plots of D1, D29 and D57 PsV Neutralization 50% Titer: baseline negative vaccine + placebo arm} \end{figure}

\begin{figure}[ht]

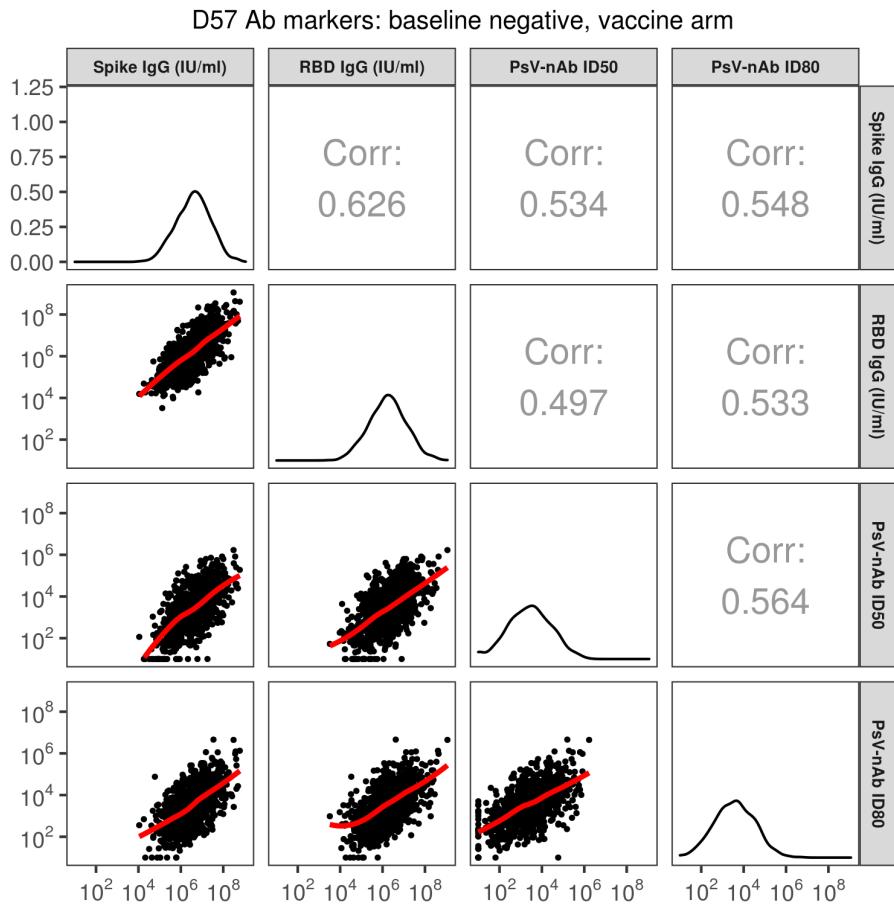
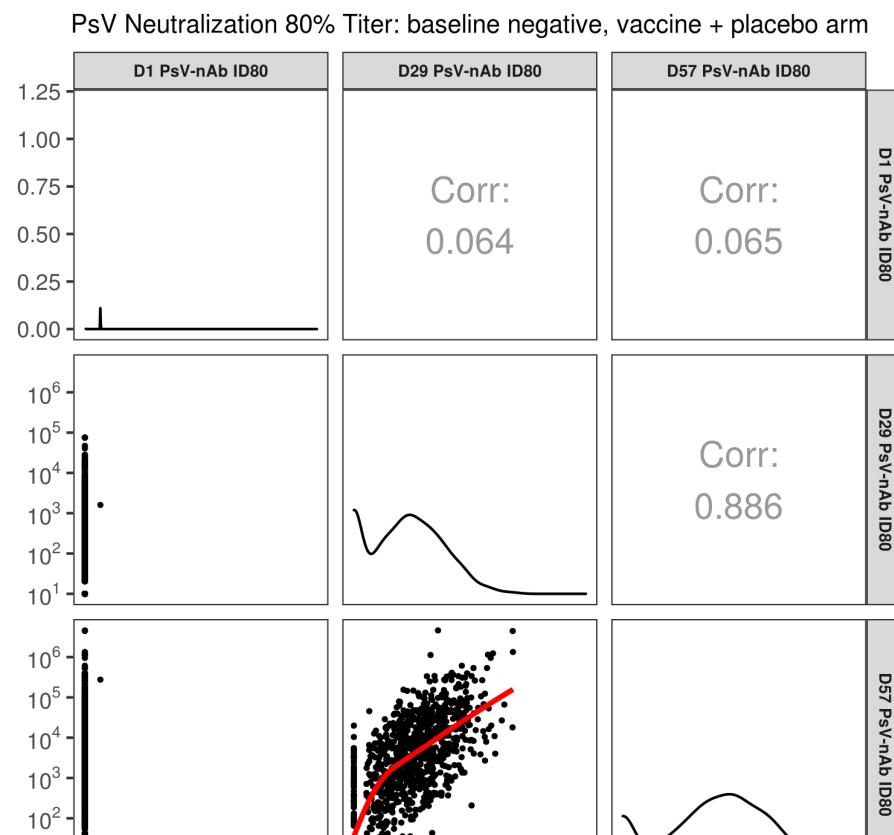


Figure 1.3: (Mock data) Pair plots of D57 Ab markers: baseline negative vaccine arm



## 1.1. PAIRS PLOTS OF ANTIBODY MARKERS FOR OVERALL PER-PROTOCOL COHORT21

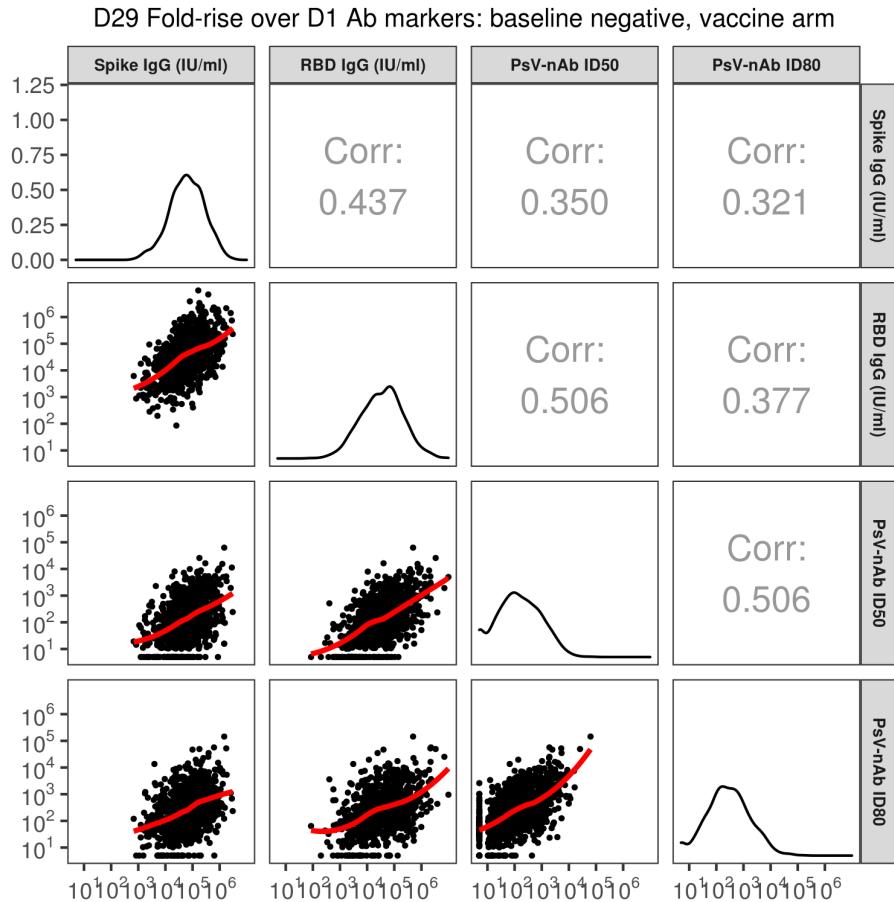


Figure 1.4: (Mock data) Pair plots of D29 fold-rise over D1 Ab markers: baseline negative vaccine arm

}

\caption{(Mock data) Pair plots of D1, D29 and D57 PsV Neutralization 80% Titer: Baseline negative vaccine + placebo arm} \end{figure}

### 1.1.2 Baseline SARS-CoV-2 Positive

\begin{figure}[ht]

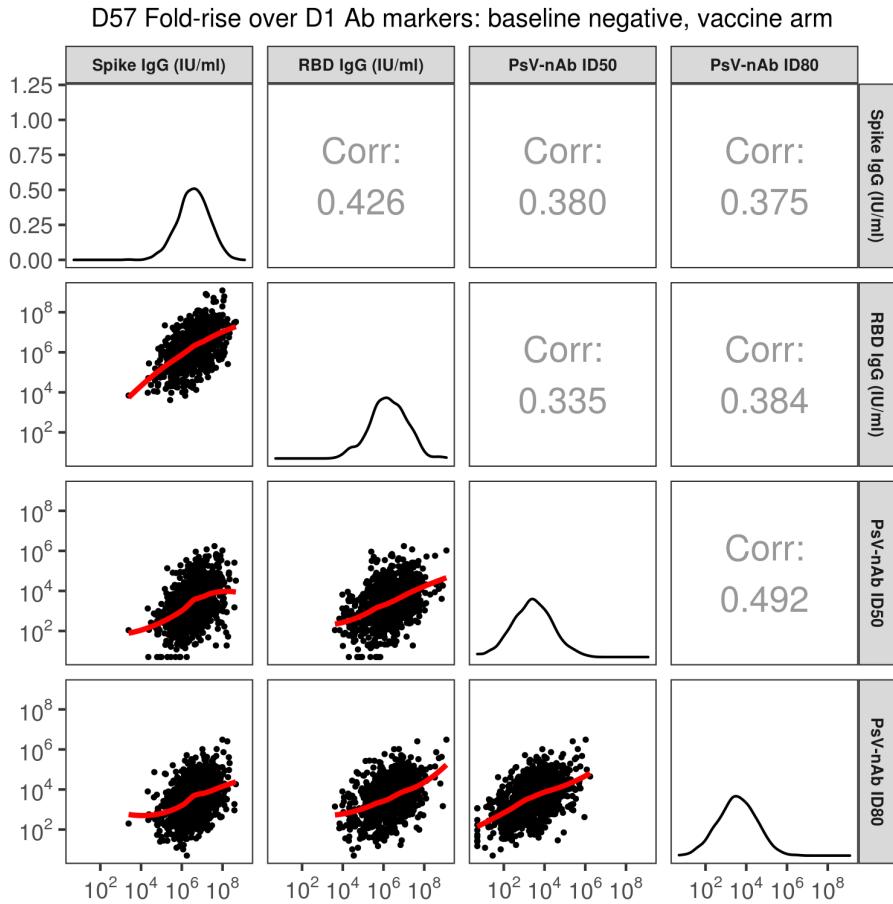
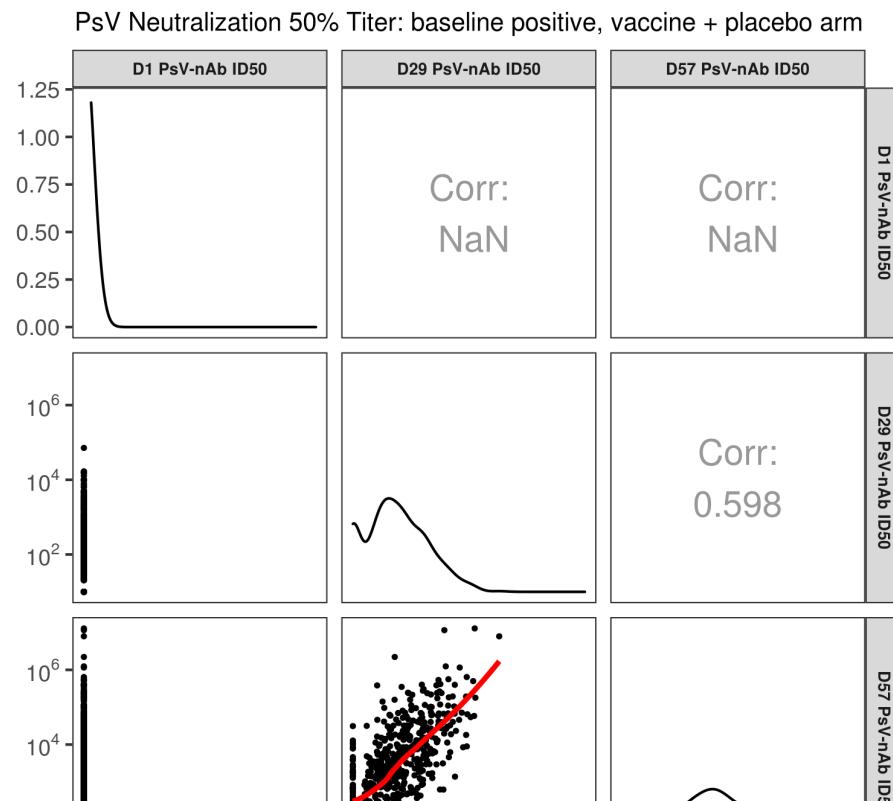


Figure 1.5: (Mock data) Pair plots of D57 fold-rise over D1 Ab markers: baseline negative vaccine arm



## 1.1. PAIRS PLOTS OF ANTIBODY MARKERS FOR OVERALL PER-PROTOCOL COHORT23

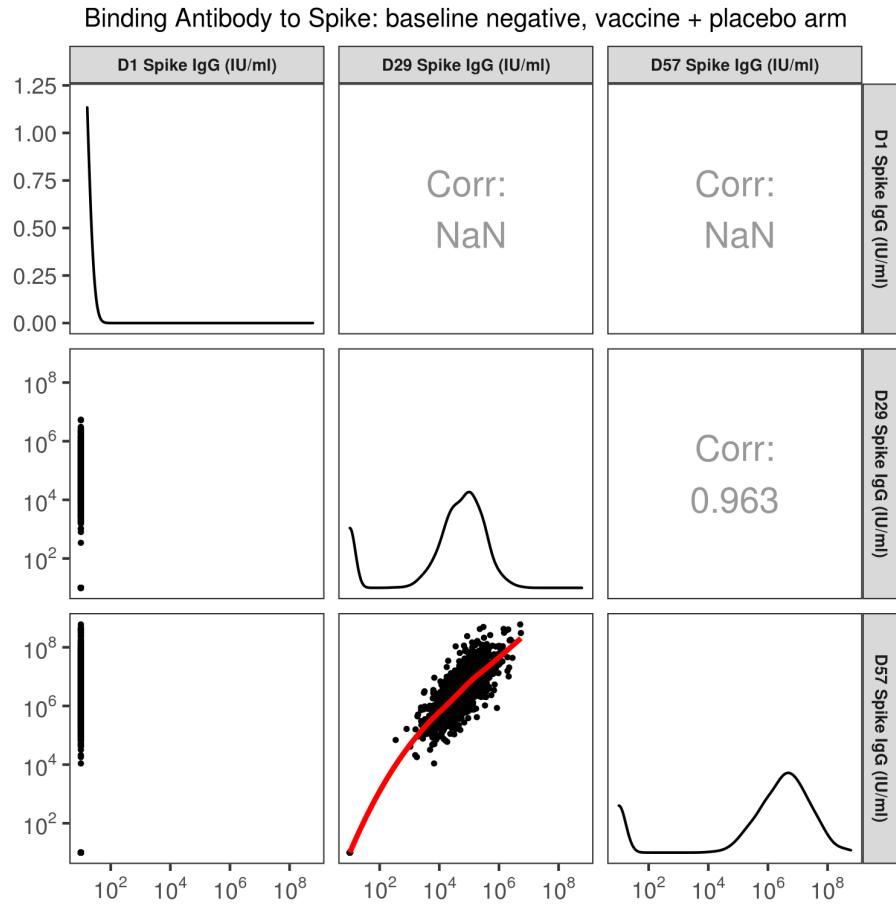


Figure 1.6: (Mock data) Pair plots of D1, D29 and D57 Binding Antibody to Spike: baseline negative vaccine + placebo arm

}

\caption{(Mock data) Pair plots of D1, D29 and D57 PsV Neutralization 50% Titer: baseline positive vaccine + placebo arm} \end{figure}

\begin{figure}[ht]

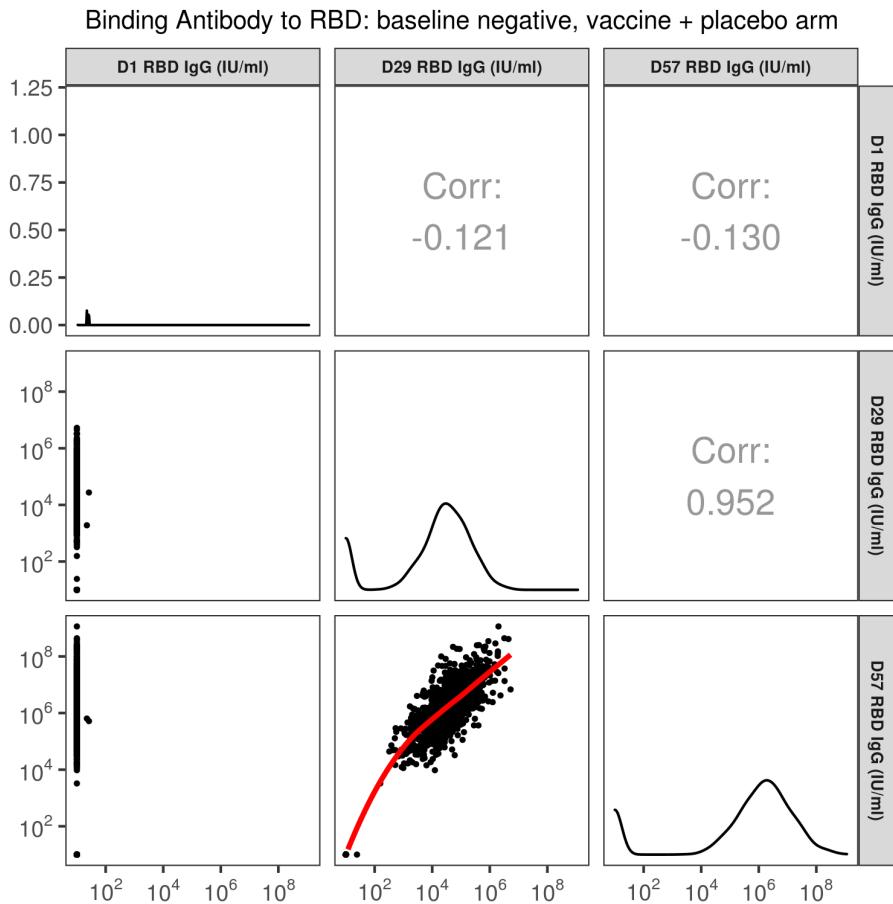
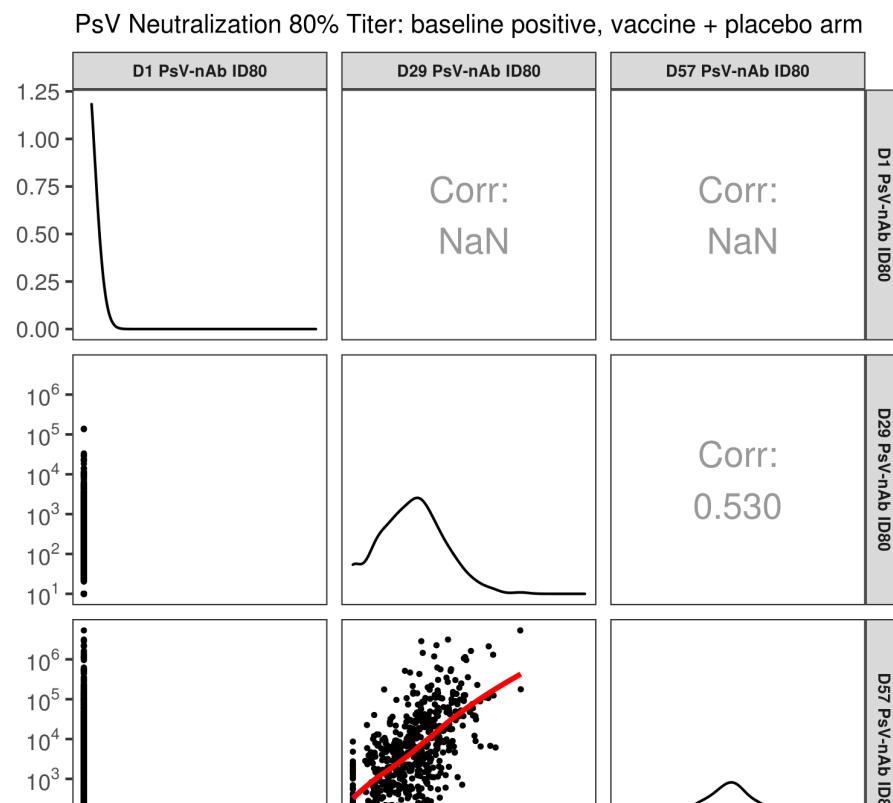


Figure 1.7: (Mock data) Pair plots of D1, D29 and D57 Binding Antibody to RBD: baseline negative vaccine + placebo arm



## 1.2. RCDF PLOTS OF ANTIBODY MARKERS FOR OVERALL PER-PROTOCOL COHORT25

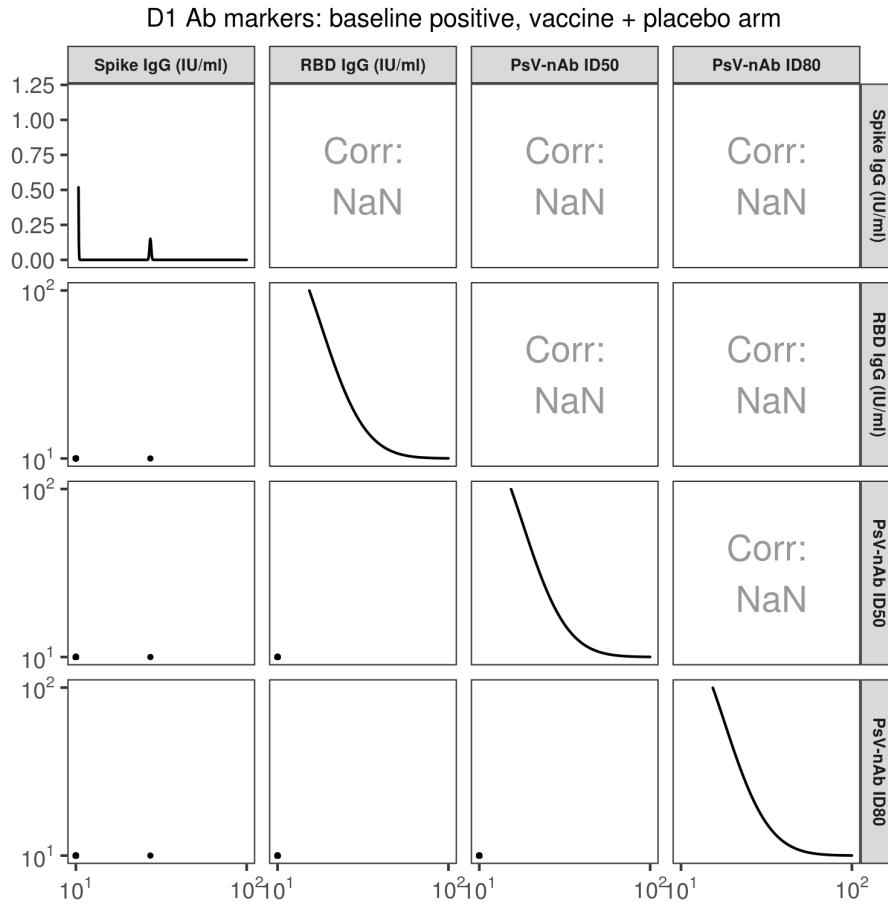


Figure 1.8: (Mock data) Pair plots of D1 Ab markers: baseline positive vaccine + placebo arms

}

\caption{(Mock data) Pair plots of D1, D29 and D57 PsV Neutralization 80% Titer: baseline positive vaccine + placebo arm} \end{figure}

## 1.2 RCDF plots of antibody markers for overall per-protocol cohort

### 1.3 Box plots of antibody markers for overall per-protocol cohort

#### 1.3.1 Baseline SARS-CoV-2 negative

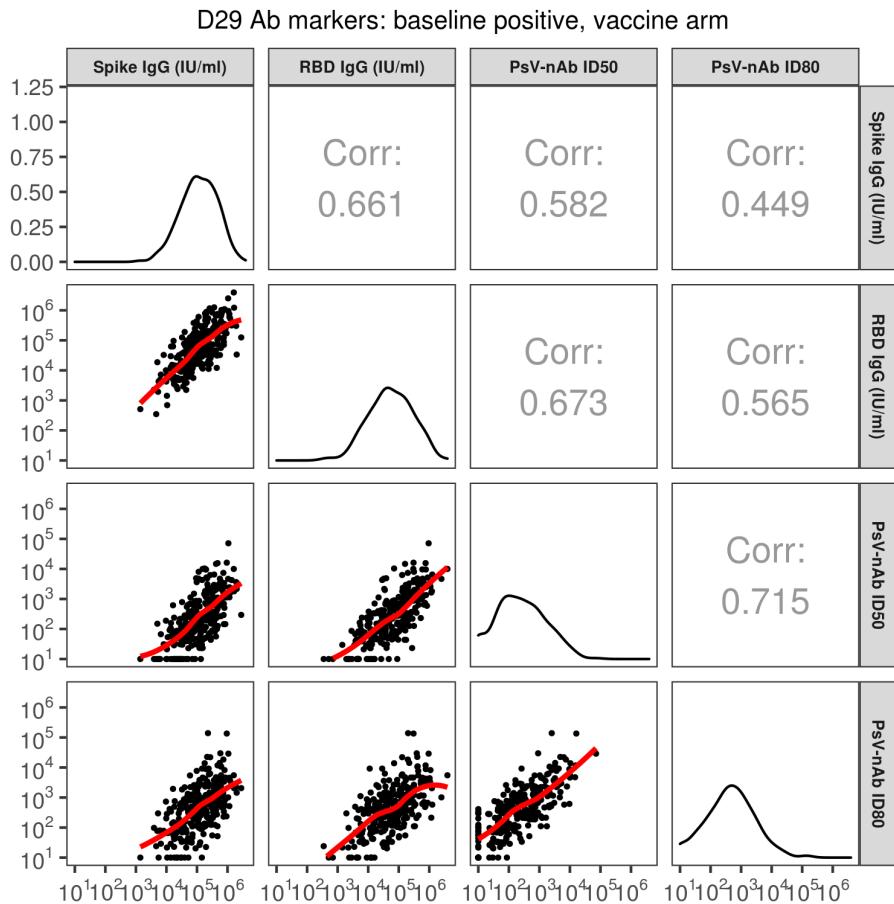


Figure 1.9: (Mock data) Pair plots of D29 Ab markers: baseline positive vaccine arm

### 1.3.2 Baseline SARS-CoV-2 positive

#### 1.3.3 Baseline negative vs. positive vaccine recipients

#### 1.3.4 Baseline negative vs. positive placebo recipients

### 1.4 Spaghetti plots of antibody markers over time for the overall per-protocol cohort

#### 1.4.1 Baseline SARS-CoV-2 negative

## 1.5. RCDF PLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT27

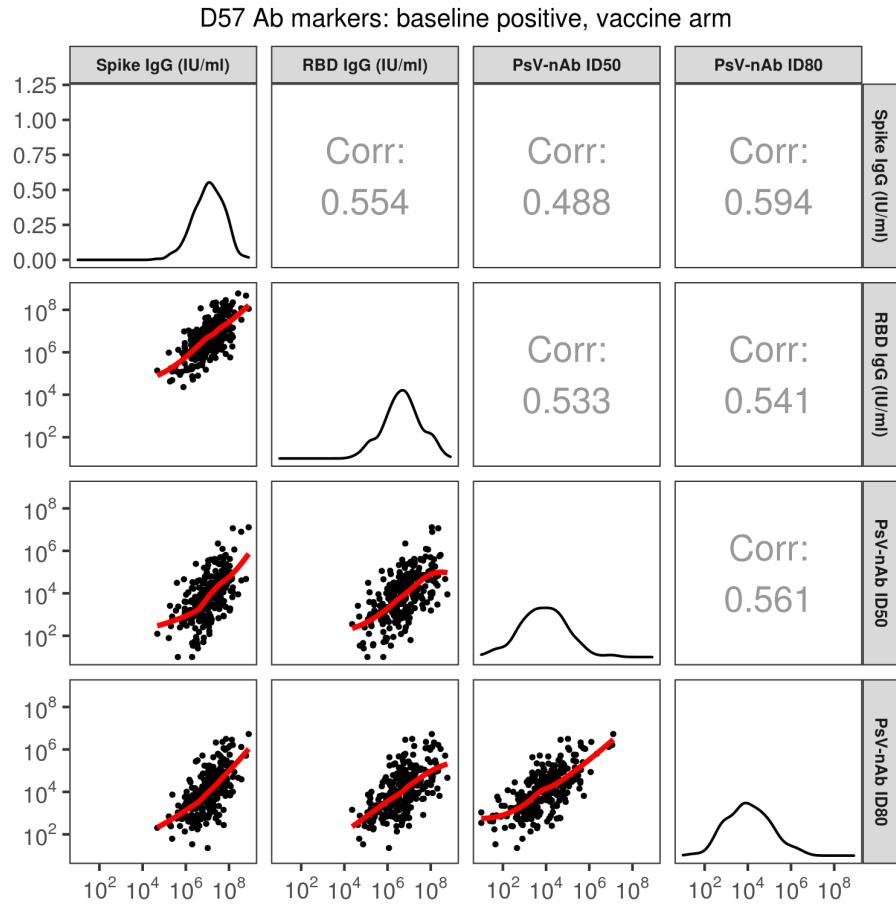


Figure 1.10: (Mock data) Pair plots of D57 Ab markers: baseline positive vaccine arm

### 1.4.2 Baseline SARS-CoV-2 positive

## 1.5 RCDF plots of antibody markers by demographics for per-protocol cohort

### 1.5.1 Baseline SARS-CoV-2 negative

### 1.5.2 Baseline SARS-CoV-2 positive

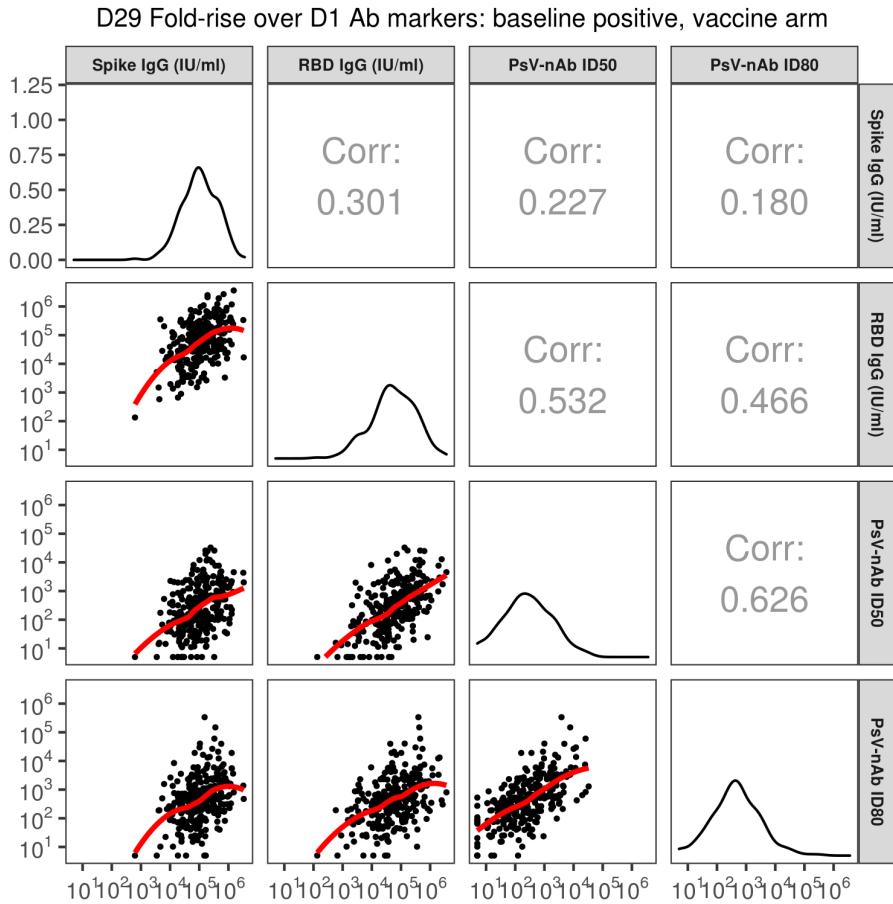


Figure 1.11: (Mock data) Pair plots of D29 fold-rise over D1 Ab markers: baseline positive vaccine arm

## 1.6 Boxplots of antibody markers by demographics for per-protocol cohort

### 1.6.1 Baseline SARS-CoV-2 negative

### 1.6.2 Baseline SARS-CoV-2 positive

1.6. BOXPLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT29

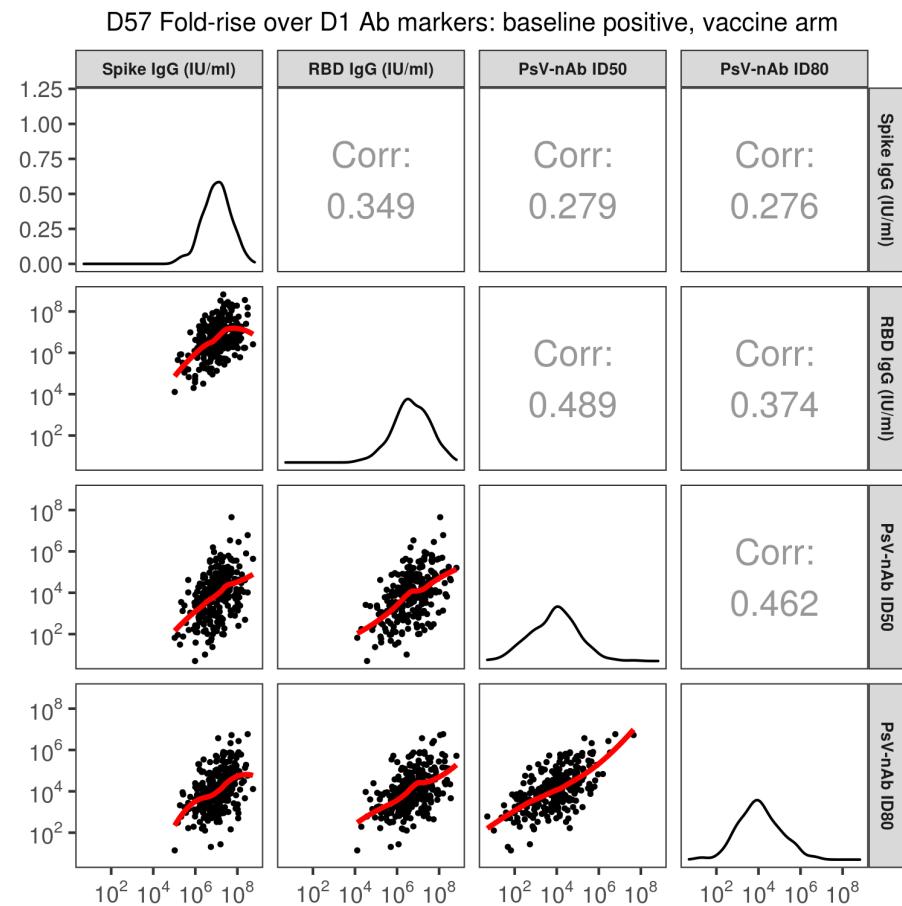


Figure 1.12: (Mock data) Pair plots of D57 fold-rise over D1 Ab markers: baseline positive vaccine arm

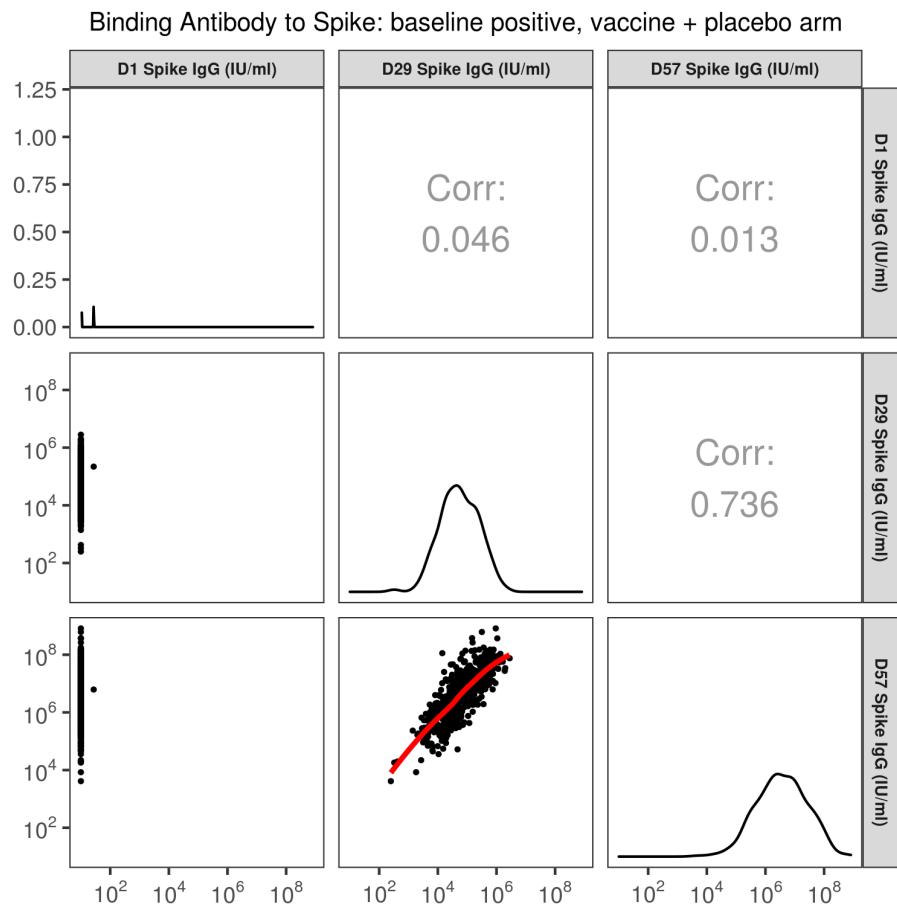


Figure 1.13: (Mock data) Pair plots of D1, D29 and D57 Binding Antibody to Spike: baseline positive vaccine + placebo arm

## 1.6. BOXPLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT31

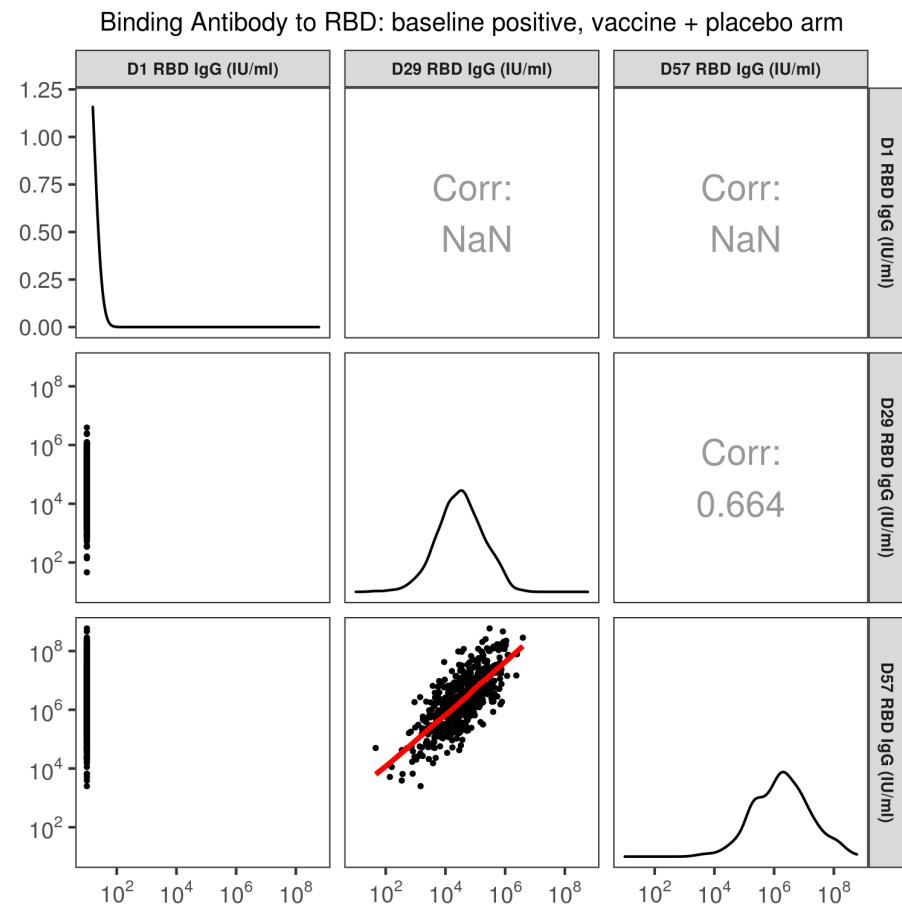


Figure 1.14: (Mock data) Pair plots of D1, D29 and D57 Binding Antibody to RBD: baseline positive vaccine + placebo arm

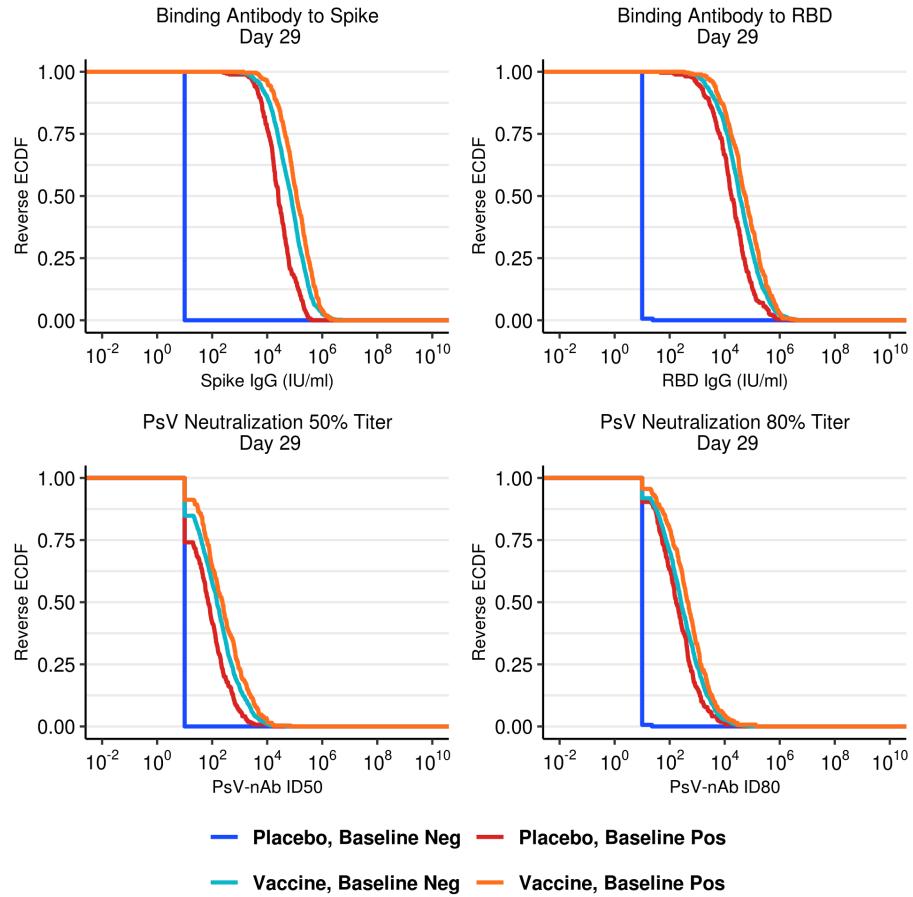


Figure 1.15: (Mock data) RCDF plots for D29 Ab markers: by baseline status x randomization arm

1.6. BOXPLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT33

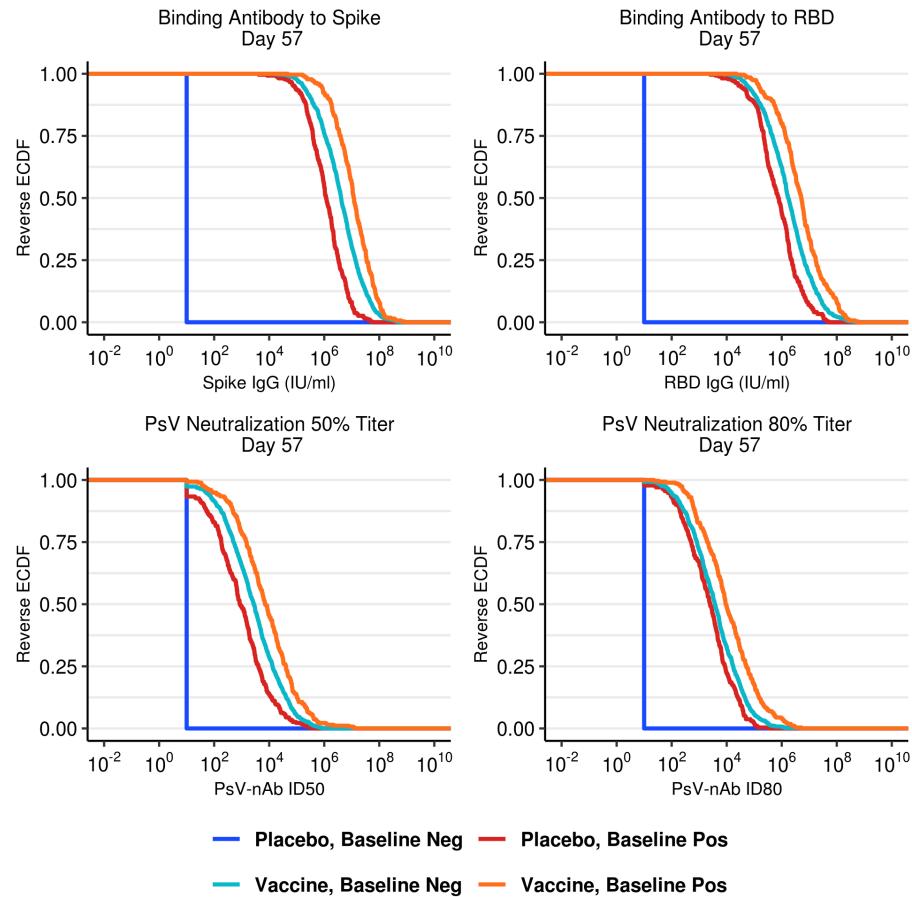


Figure 1.16: (Mock data) RCDF plots for D57 Ab markers: by baseline status x randomization arm

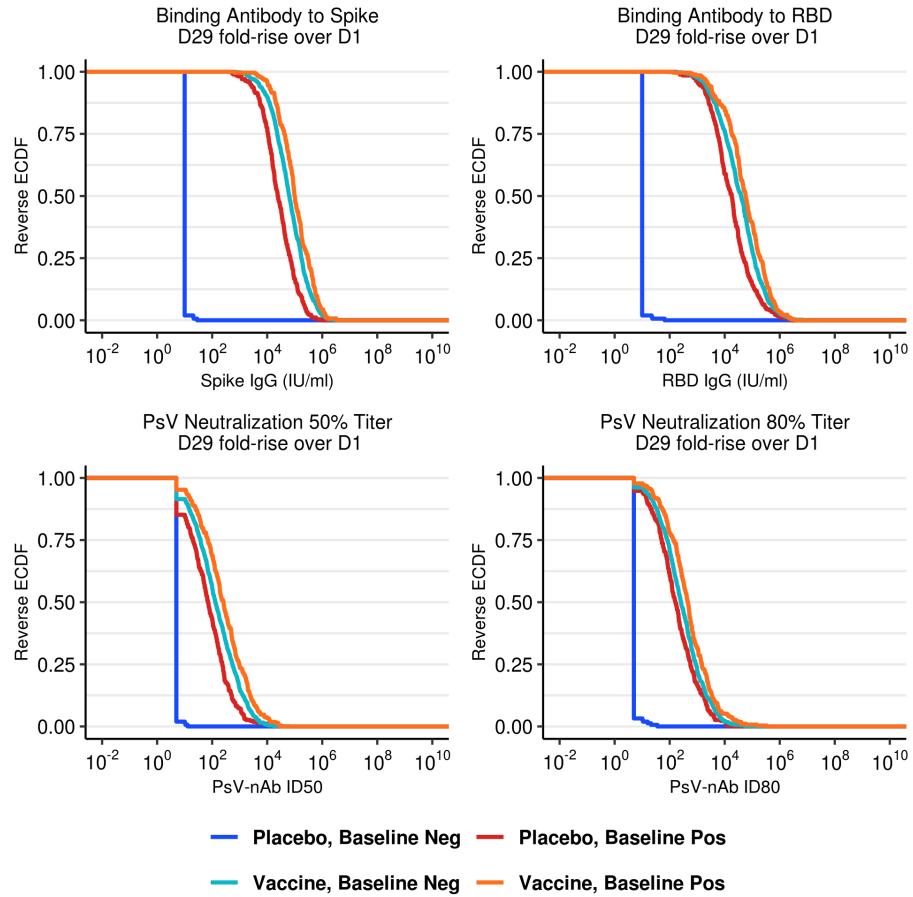


Figure 1.17: (Mock data) RCDF plots for D29 fold-rise over D1 Ab markers: by baseline status x randomization arm

1.6. BOXPLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT35

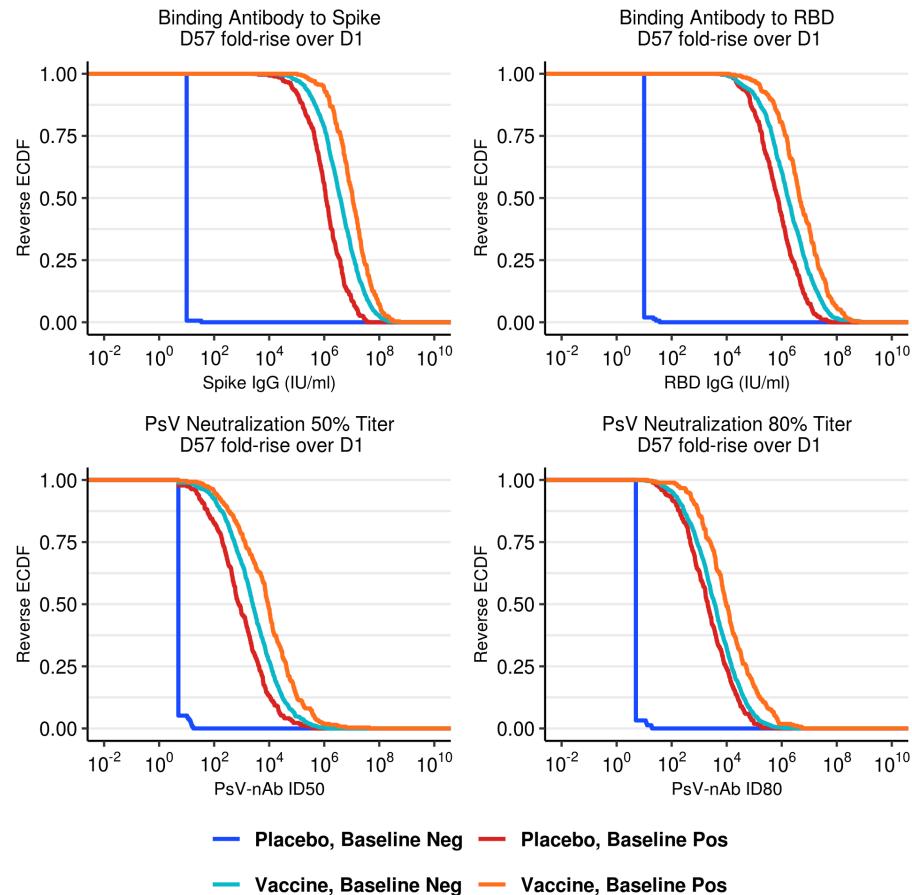


Figure 1.18: (Mock data) RCDF plots for D57 fold-rise over D1 Ab markers: by baseline status x randomization arm

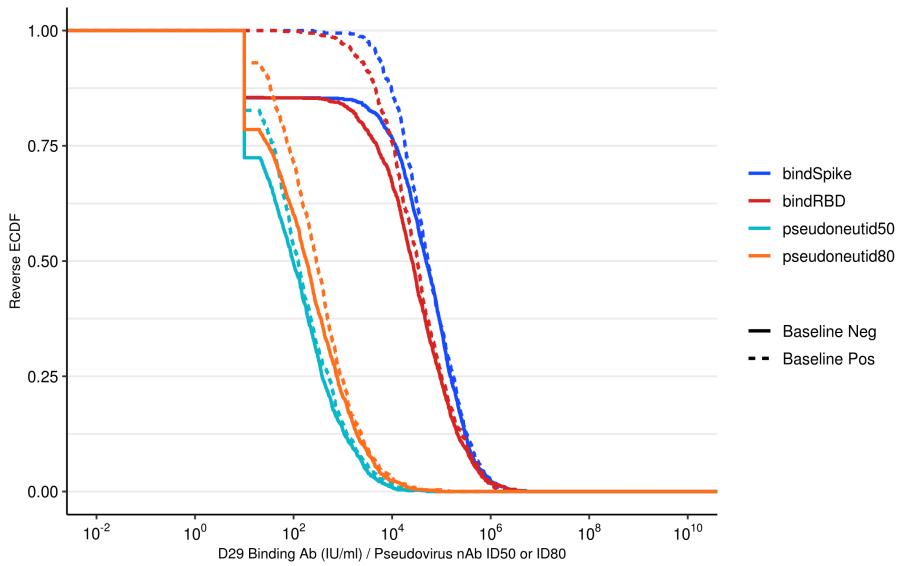


Figure 1.19: (Mock data) RCDF plots for D29 Ab markers: by baseline status for the vaccine arm

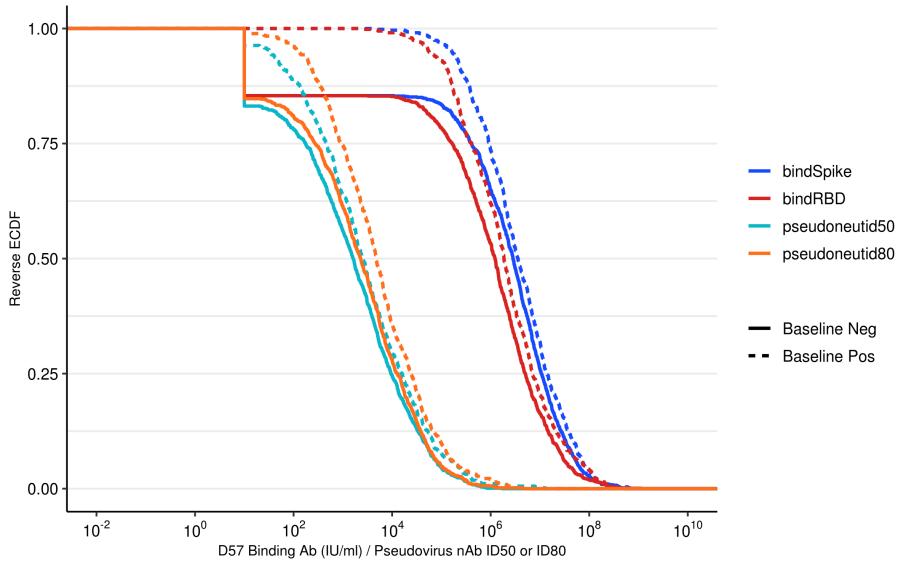


Figure 1.20: (Mock data) RCDF plots for D57 Ab markers: by baseline status for the vaccine arm

## 1.6. BOXPLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT37

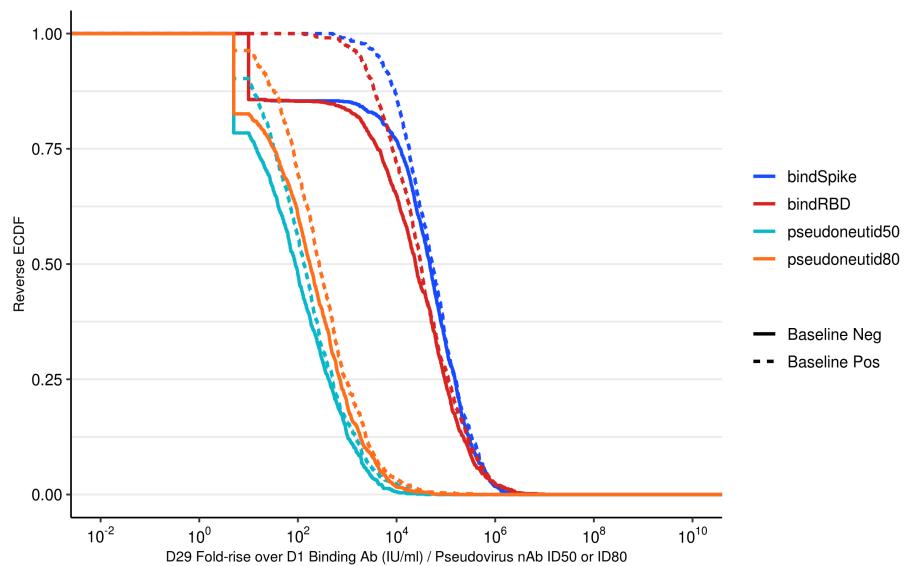


Figure 1.21: (Mock data) RCDF plots for D29 over D1 fold-rise Ab markers: by baseline status for the vaccine arm

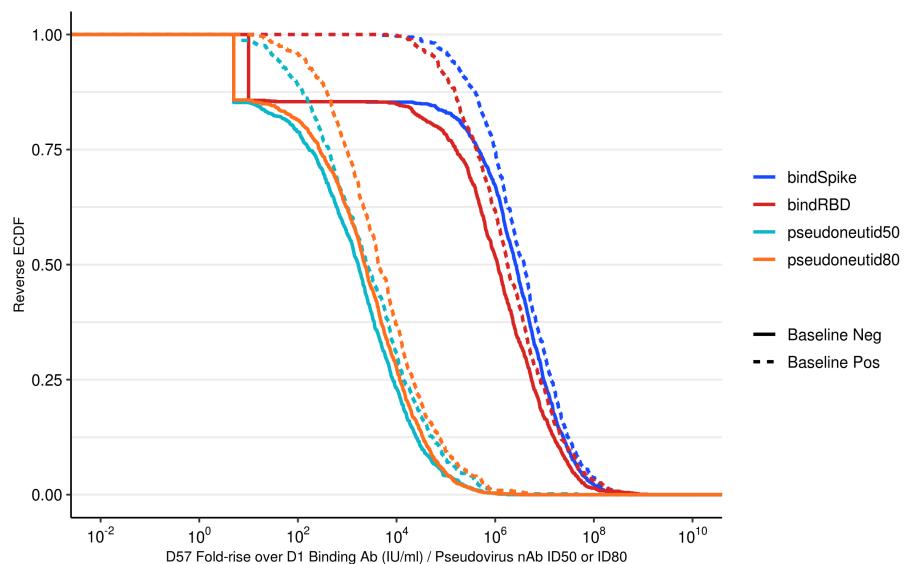


Figure 1.22: (Mock data) RCDF plots for D57 fold-rise over D1 Ab markers: by baseline status for the vaccine arm

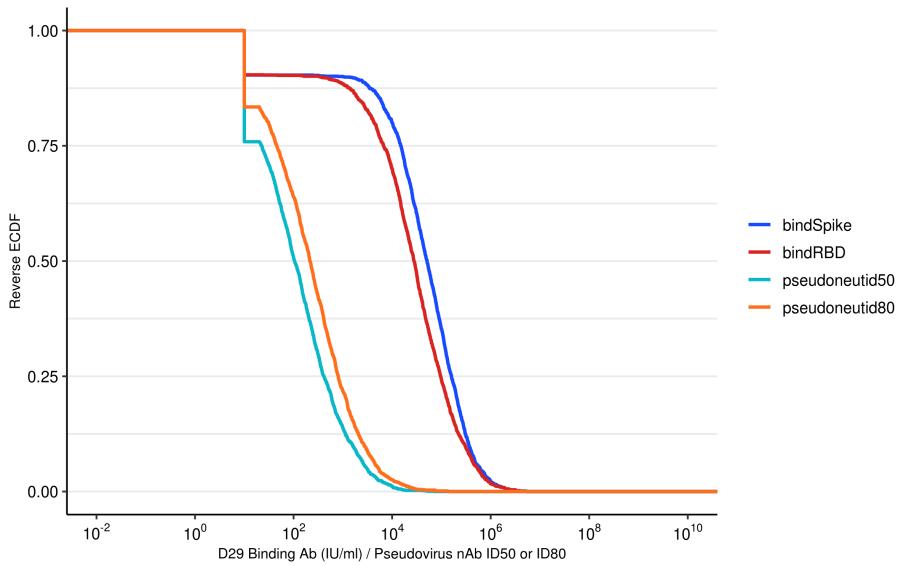


Figure 1.23: (Mock data) RCDF plots for D29 Ab markers: baseline negative vaccine arm

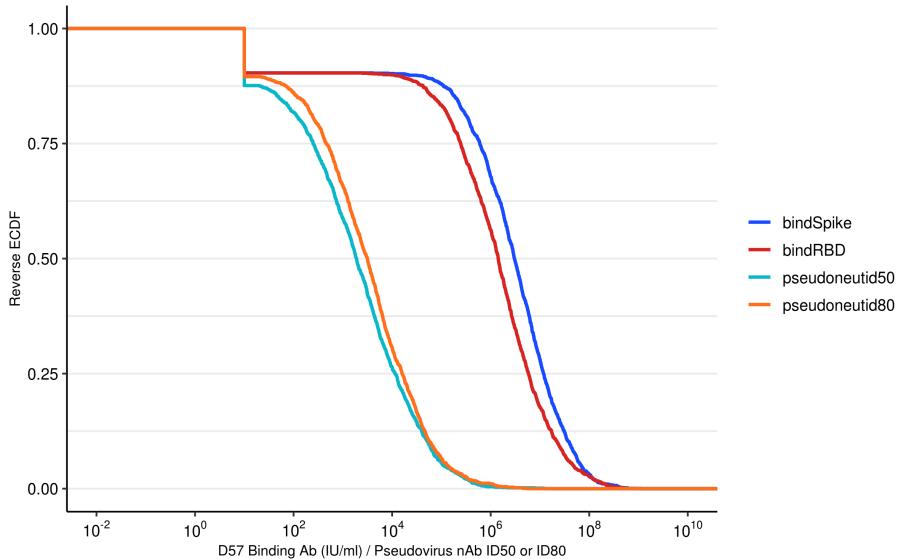


Figure 1.24: (Mock data) RCDF plots for D57 Ab markers: baseline negative vaccine arm

## 1.6. BOXPLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT39

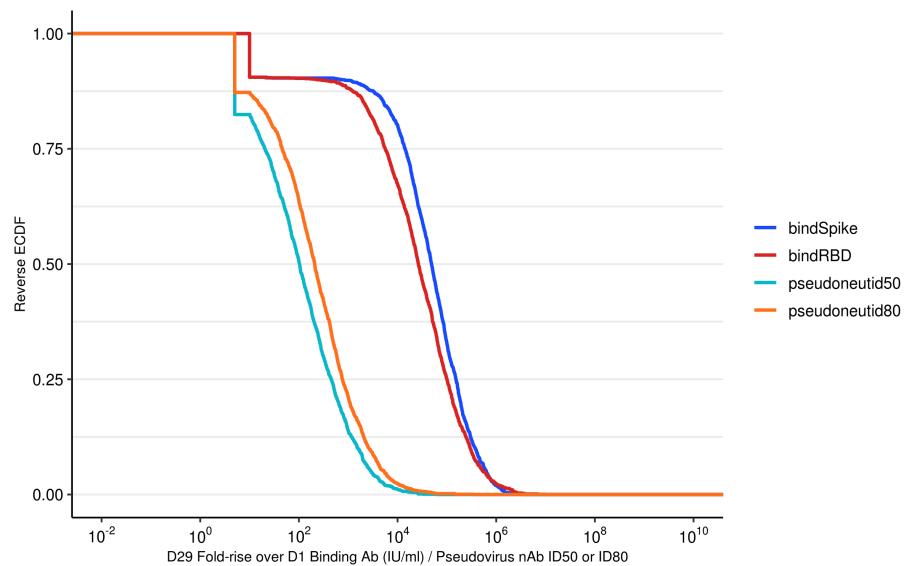


Figure 1.25: (Mock data) RCDF plots for D29 fold-rise over D1 Ab markers: baseline negative vaccine arm

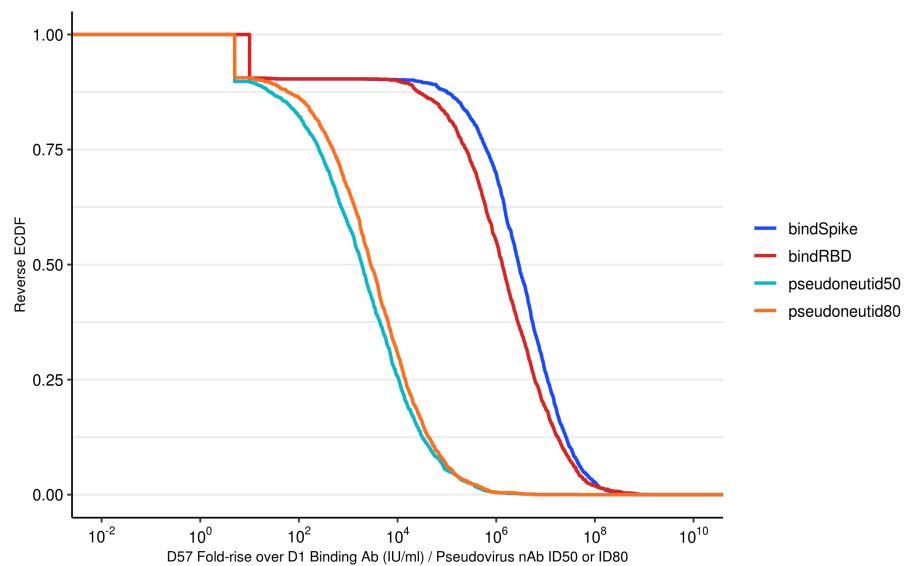


Figure 1.26: (Mock data) RCDF plots for D57 fold-rise over D1 Ab markers: baseline negative vaccine arm

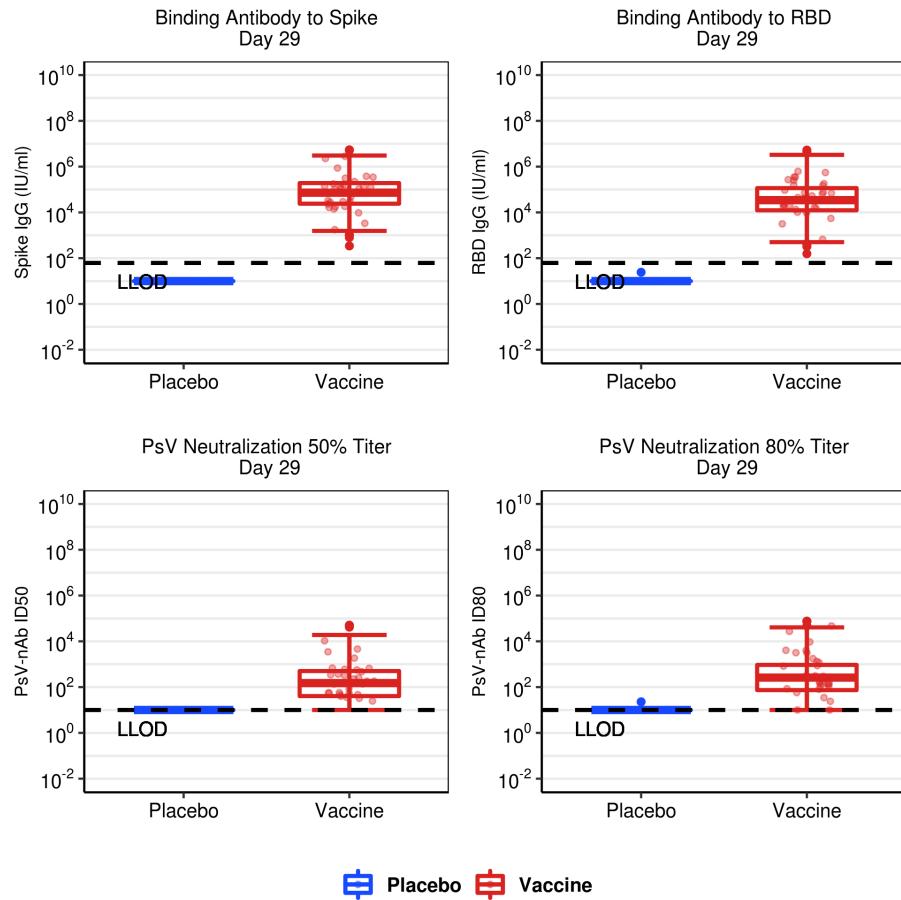


Figure 1.27: (Mock data) Boxplots of D29 Ab markers: baseline negative vaccine + placebo arms

1.6. BOXPLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT41

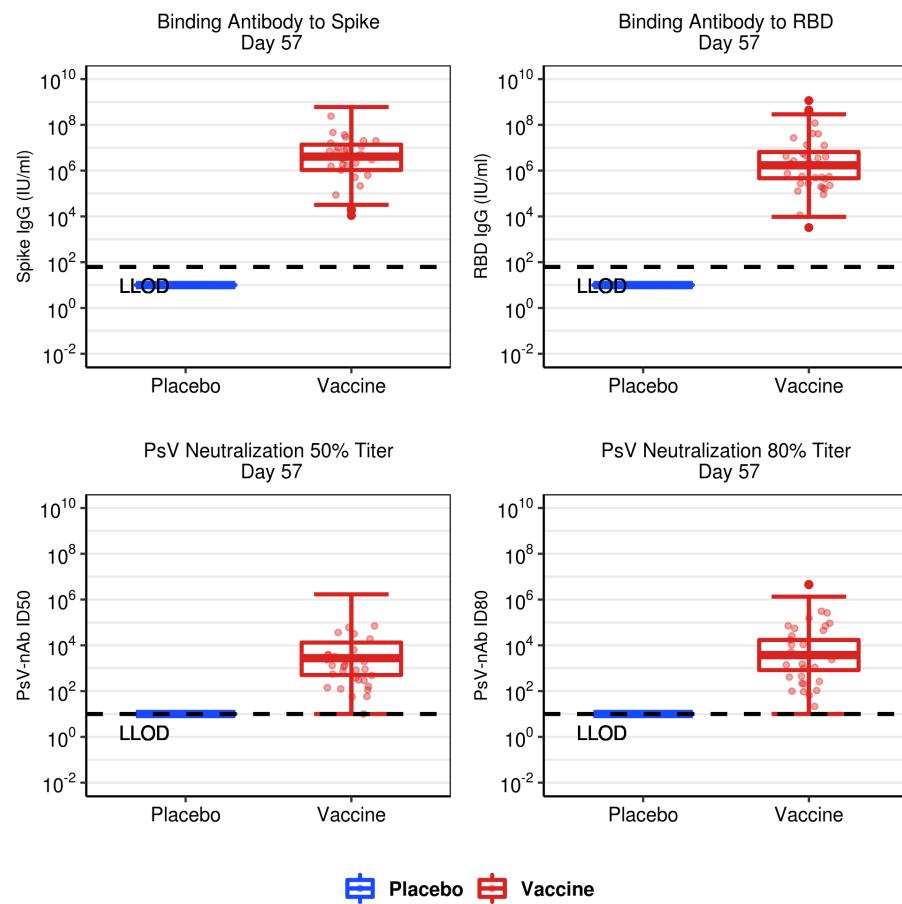


Figure 1.28: (Mock data) Boxplots of D57 Ab markers: baseline negative vaccine + placebo arms

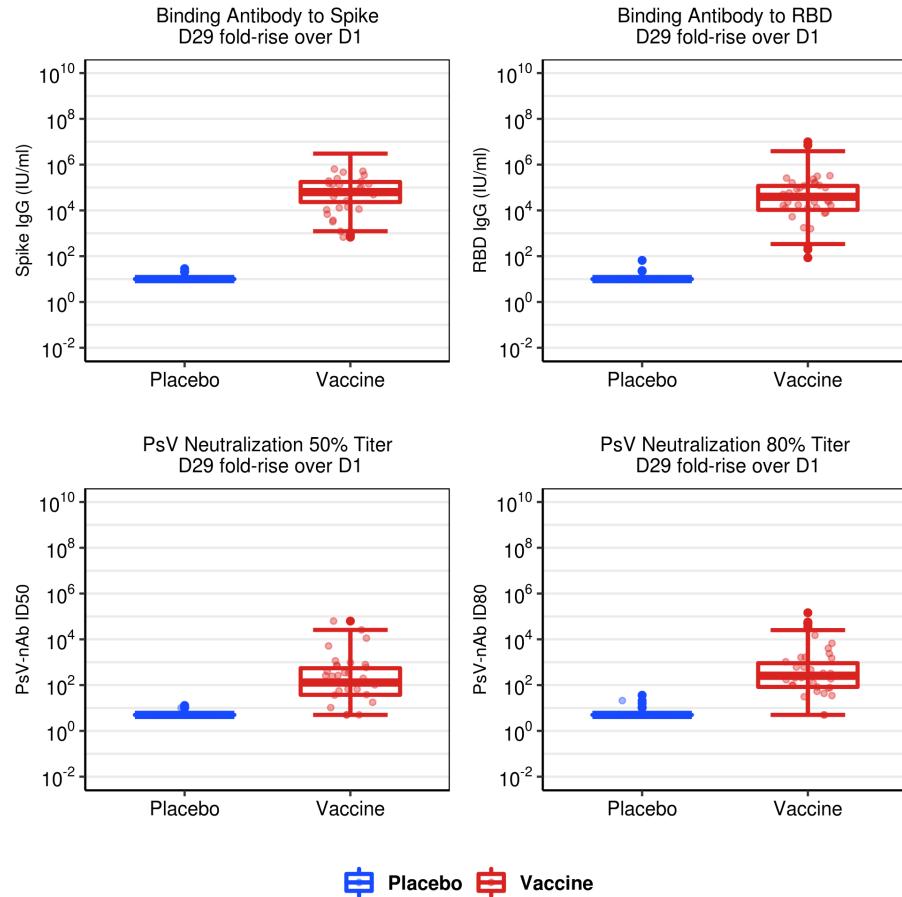


Figure 1.29: (Mock data) Boxplots of D29 fold-rise over D1 Ab markers: baseline negative vaccine + placebo arms

1.6. BOXPLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT43

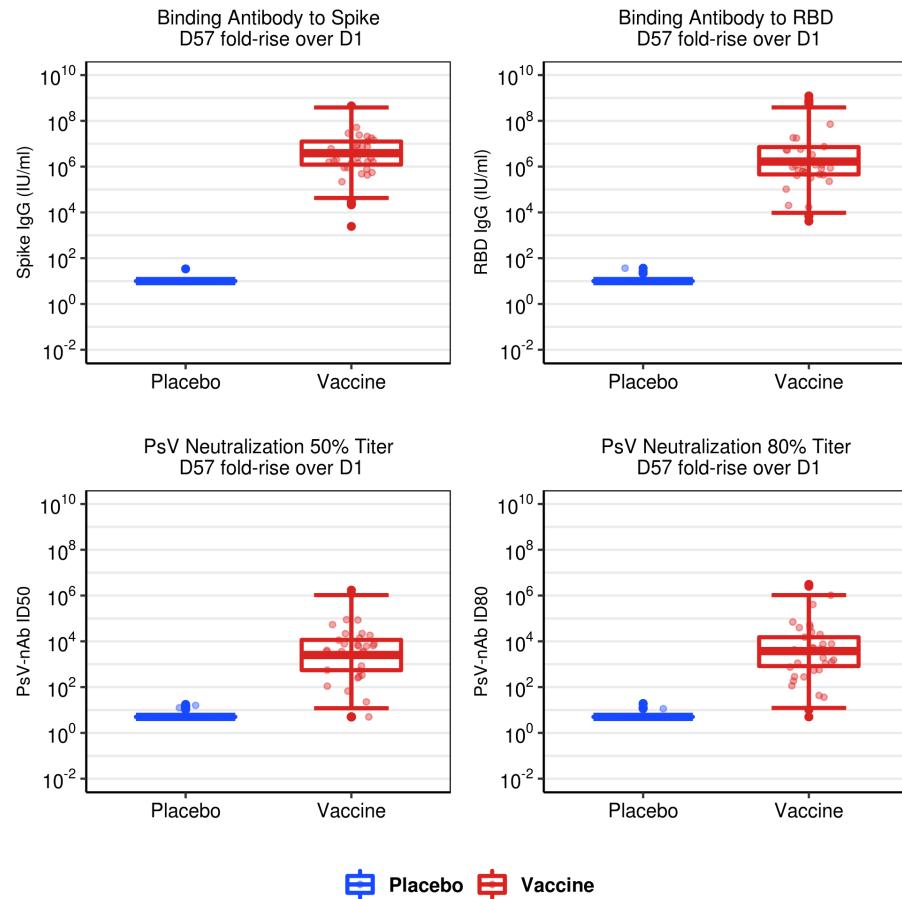


Figure 1.30: (Mock data) Boxplots of D57 fold-rise over D1 Ab markers: baseline negative vaccine + placebo arms

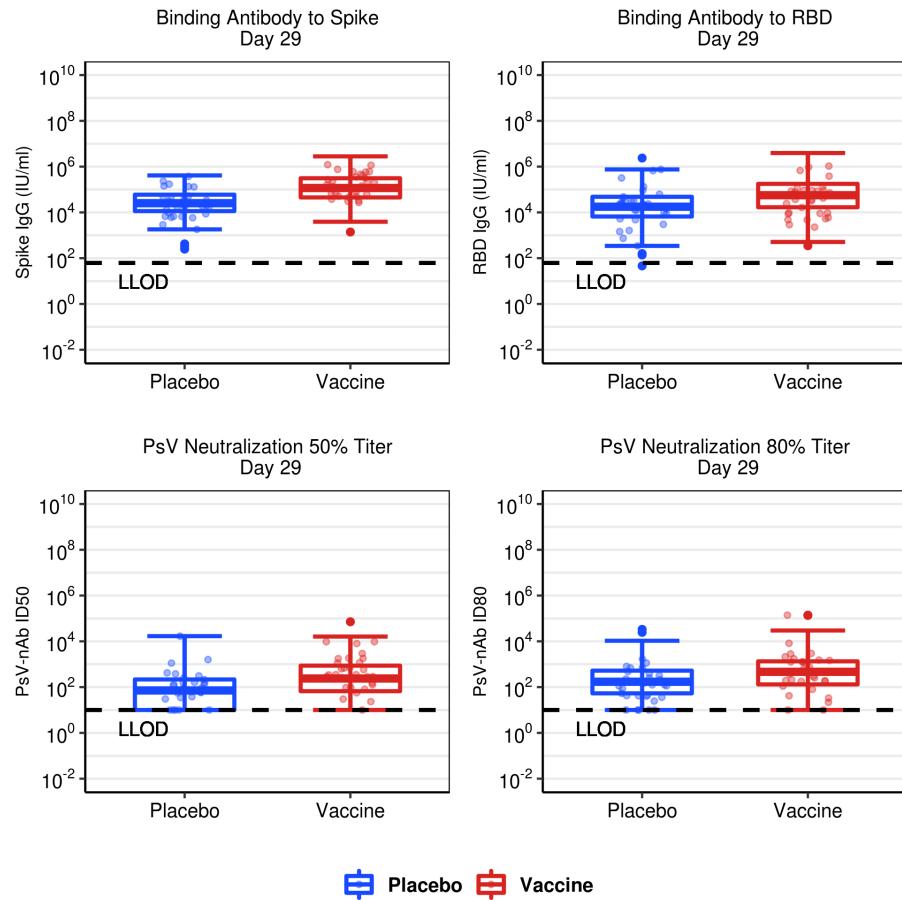


Figure 1.31: (Mock data) Boxplots of D29 Ab markers: baseline positive vaccine + placebo arms

1.6. BOXPLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT45

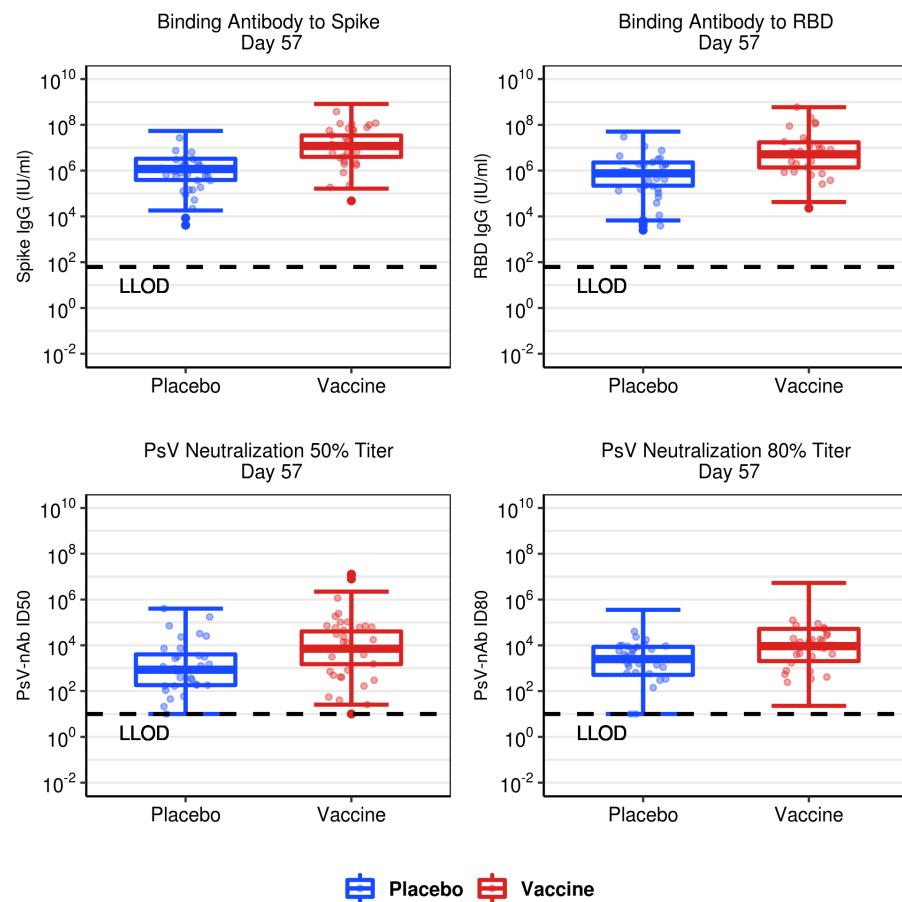


Figure 1.32: (Mock data) Boxplots of D57 Ab markers: baseline positive vaccine + placebo arms

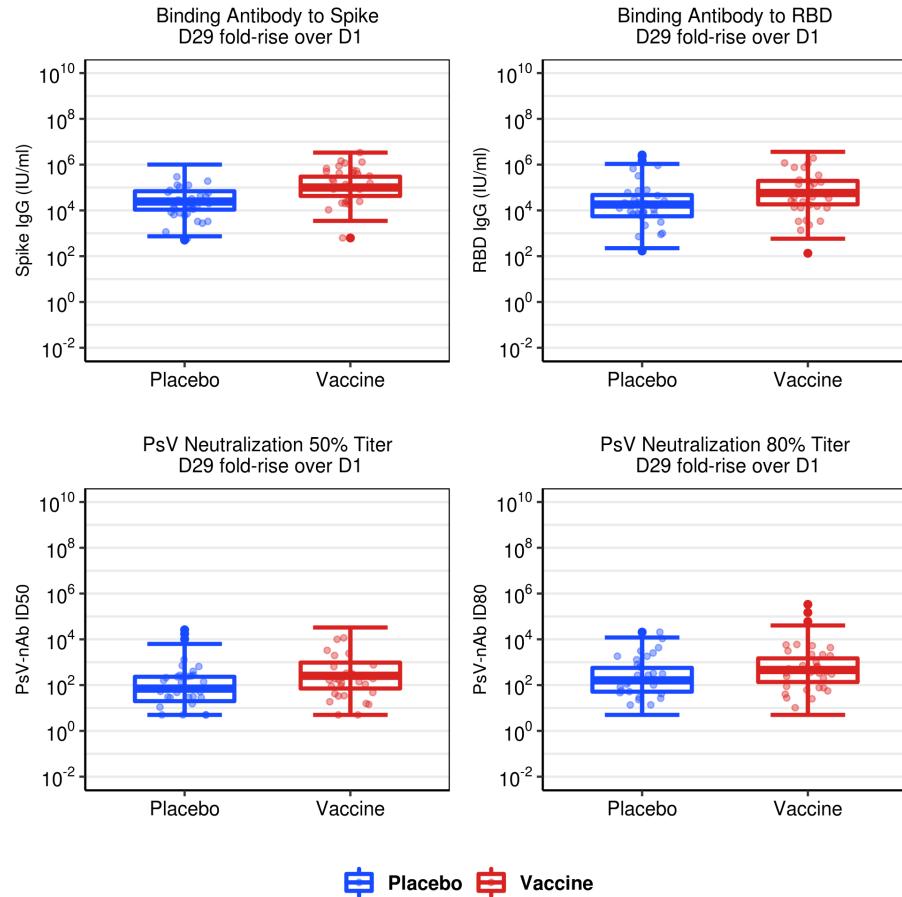


Figure 1.33: (Mock data) Boxplots of D29 fold-rise over D1 Ab markers: baseline positive vaccine + placebo arms

1.6. BOXPLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT47

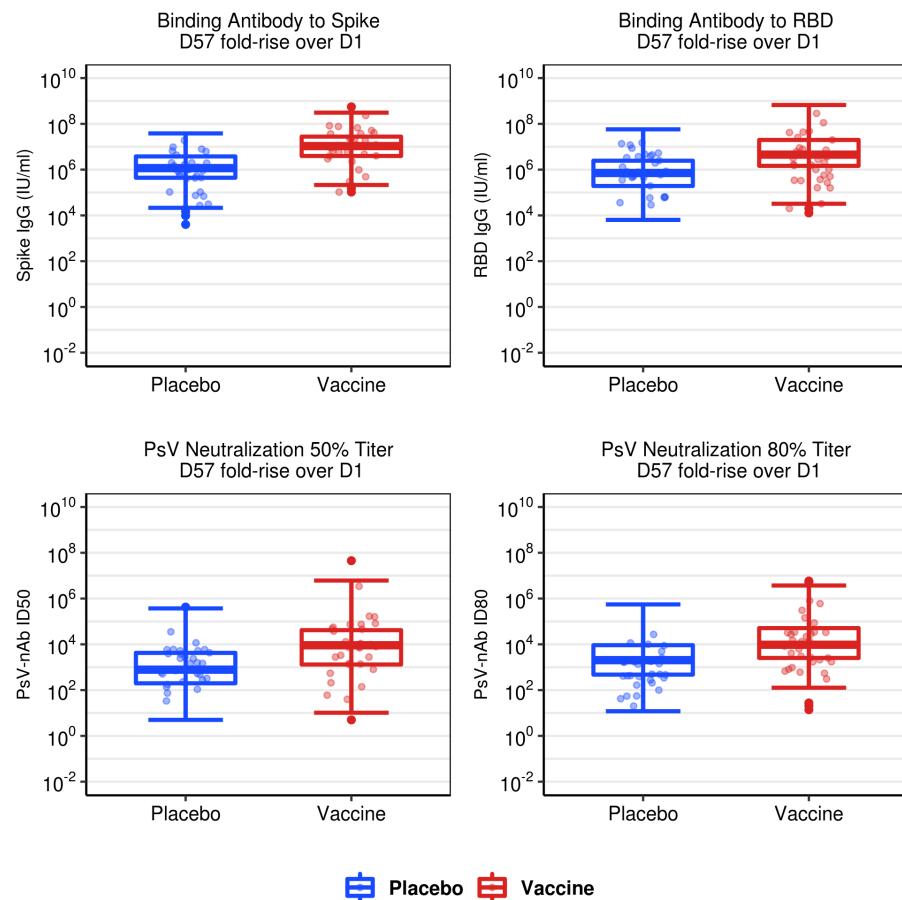


Figure 1.34: (Mock data) Boxplots of D57 fold-rise over D1 Ab markers: baseline positive vaccine + placebo arms

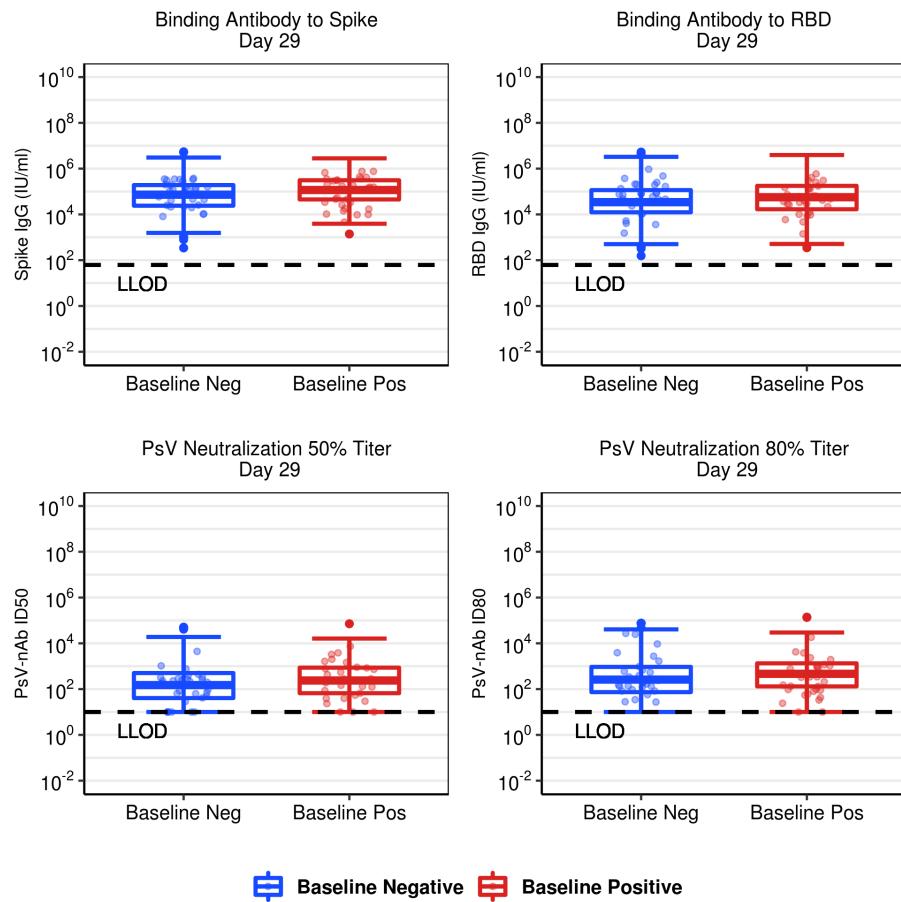


Figure 1.35: (Mock data) Boxplots of D29 Ab markers: baseline positive + negative vaccine arm

1.6. BOXPLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT49

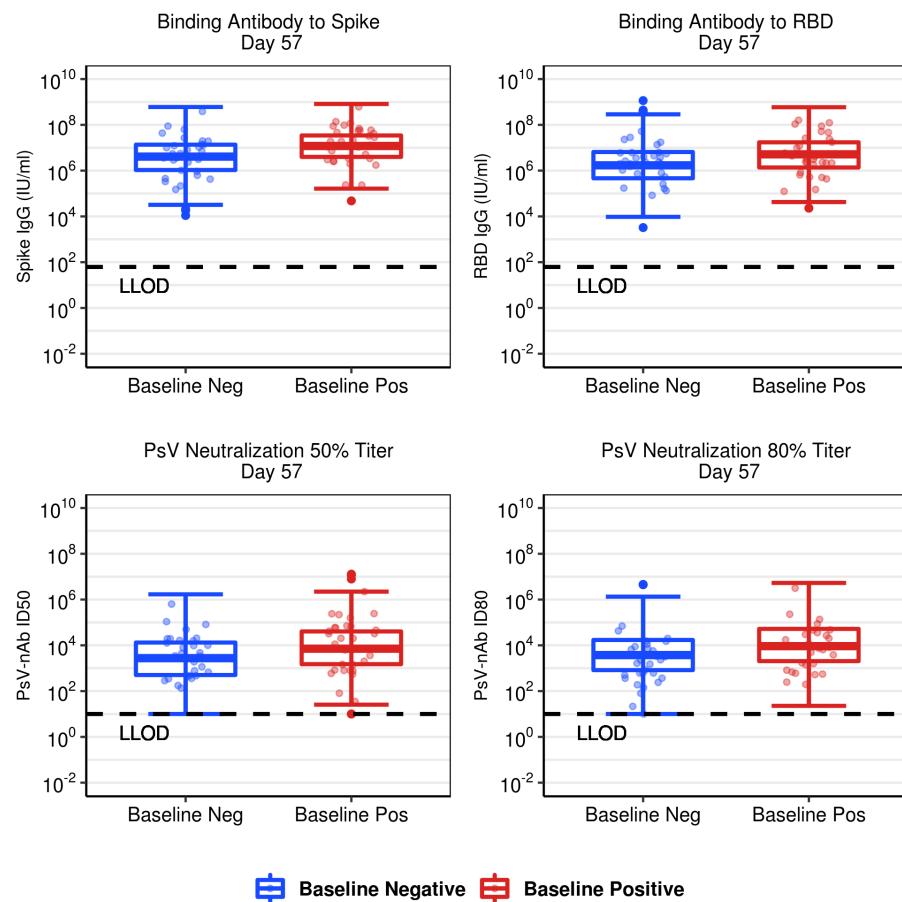


Figure 1.36: (Mock data) Boxplots of D57 Ab markers: baseline positive + negative vaccine arm

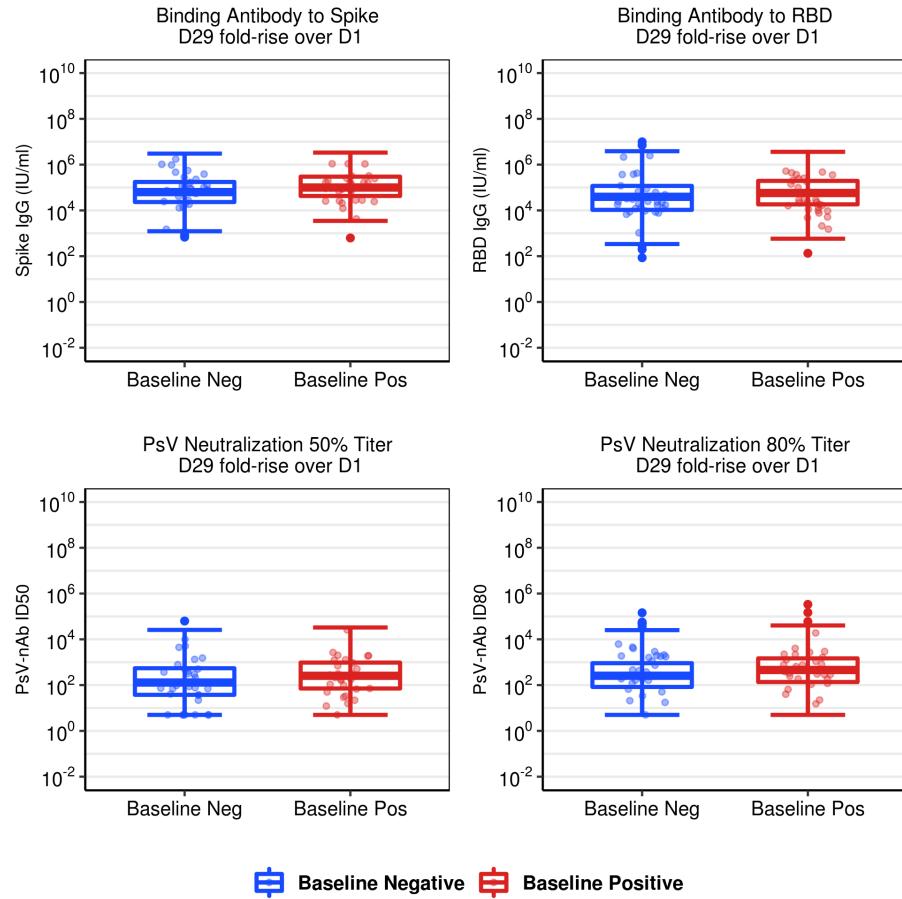


Figure 1.37: (Mock data) Boxplots of D29 fold-rise over D1 Ab markers: baseline positive + negative vaccine arm

1.6. BOXPLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT51

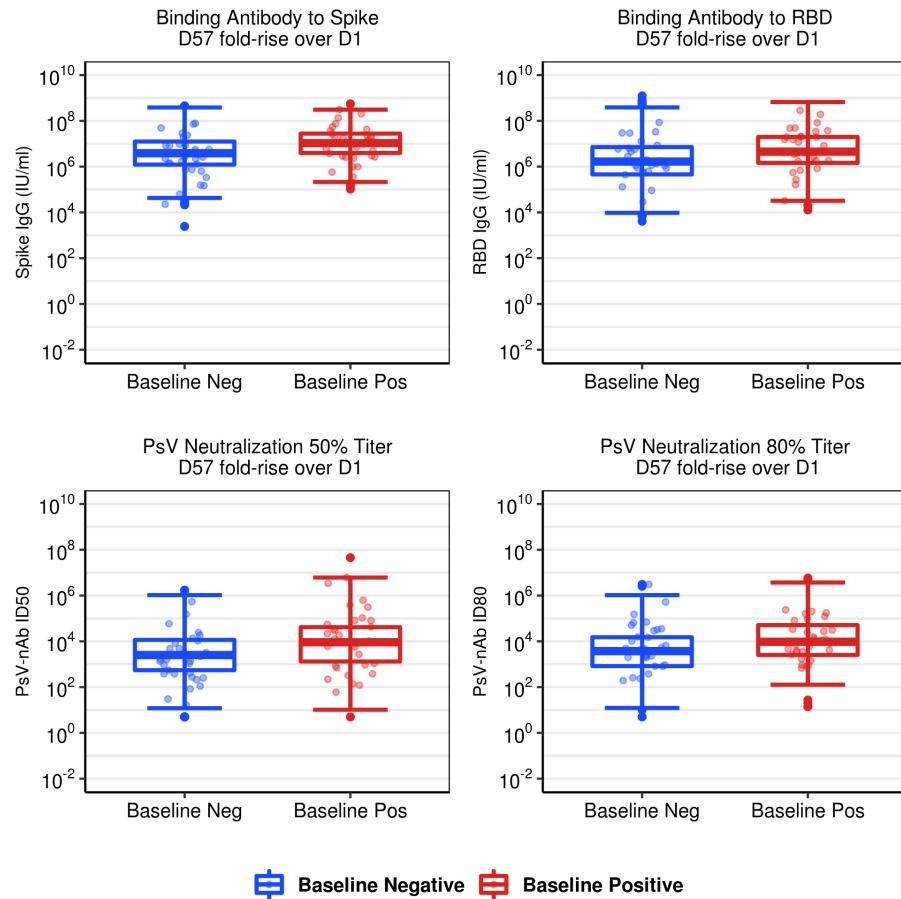


Figure 1.38: (Mock data) Boxplots of D57 fold-rise over D1 Ab markers: baseline positive + negative vaccine arm

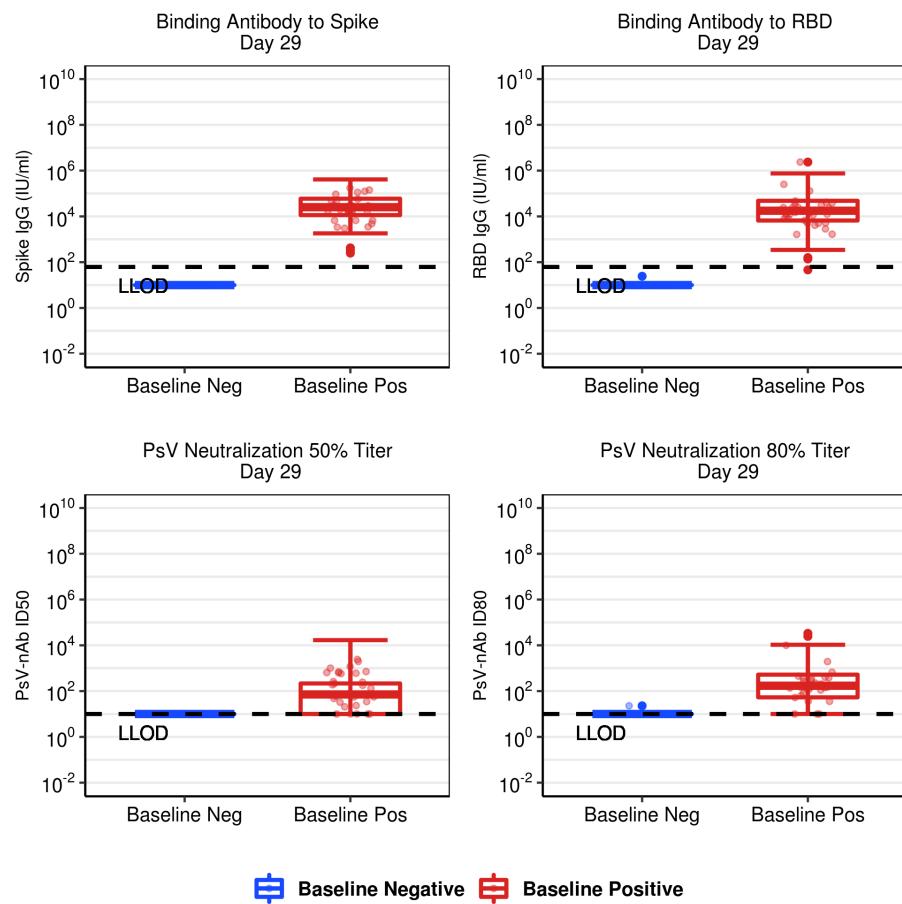


Figure 1.39: (Mock data) Boxplots of D29 Ab markers: baseline positive + negative placebo arm

1.6. BOXPLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT53

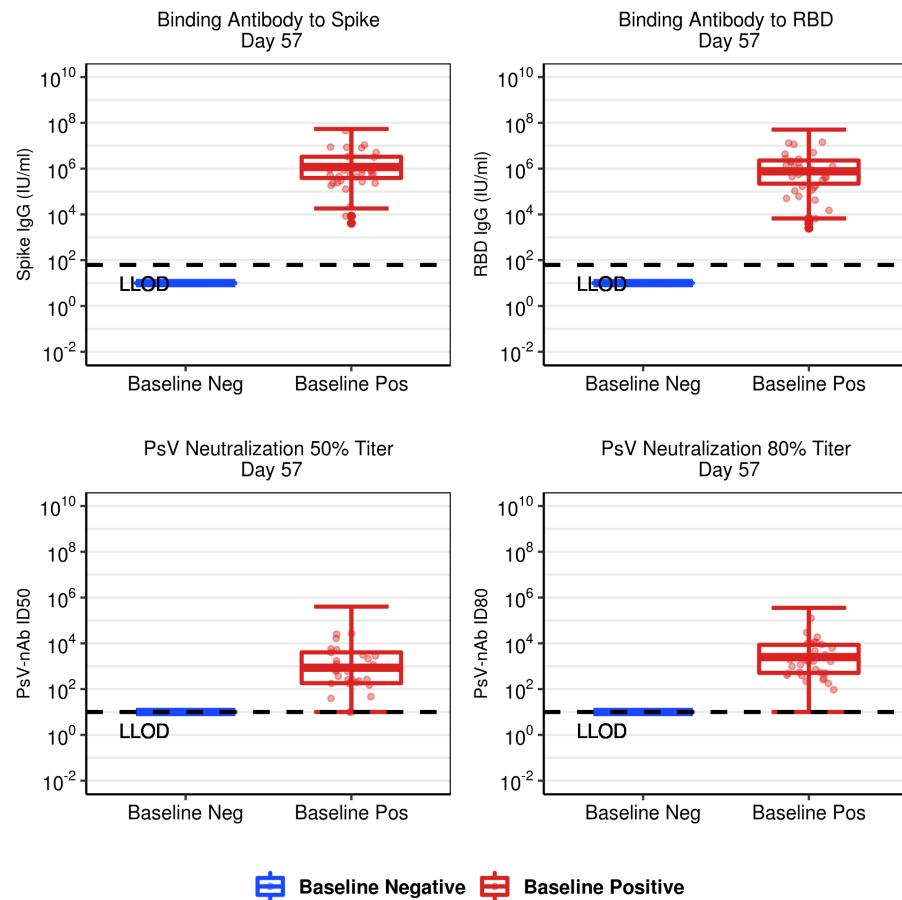


Figure 1.40: (Mock data) Boxplots of D57 Ab markers: baseline positive + negative placebo arm

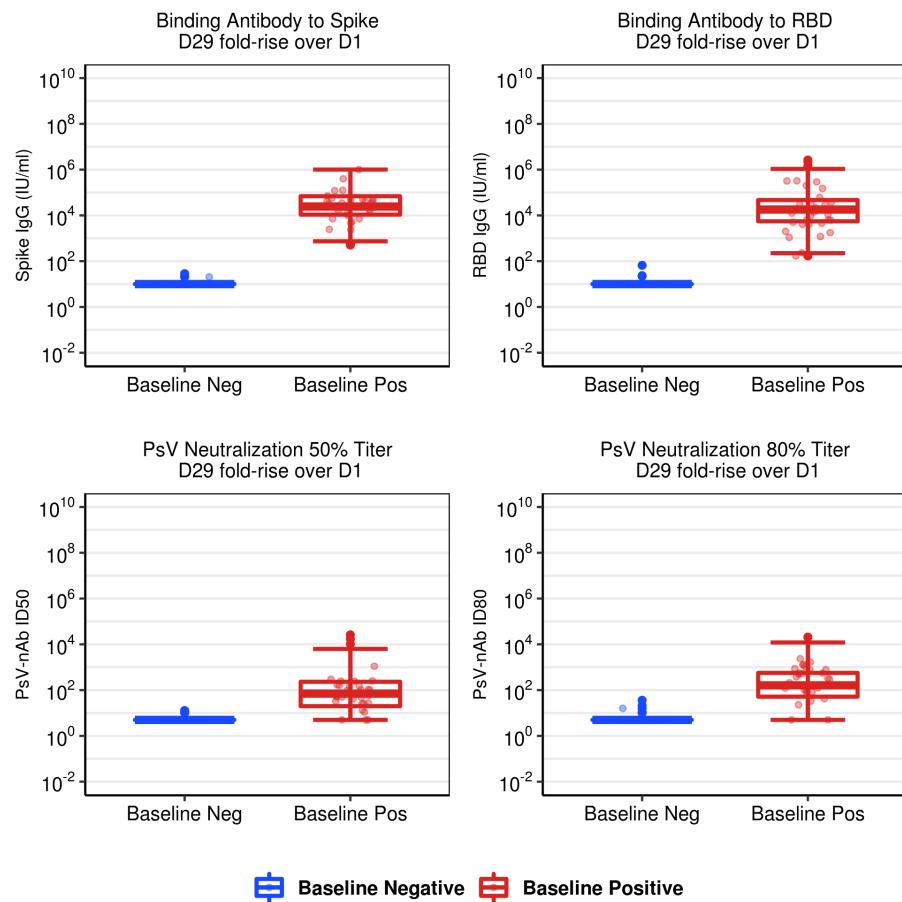


Figure 1.41: (Mock data) Boxplots of D29 fold-rise over D1 Ab markers: baseline positive + negative placebo arm

1.6. BOXPLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT55

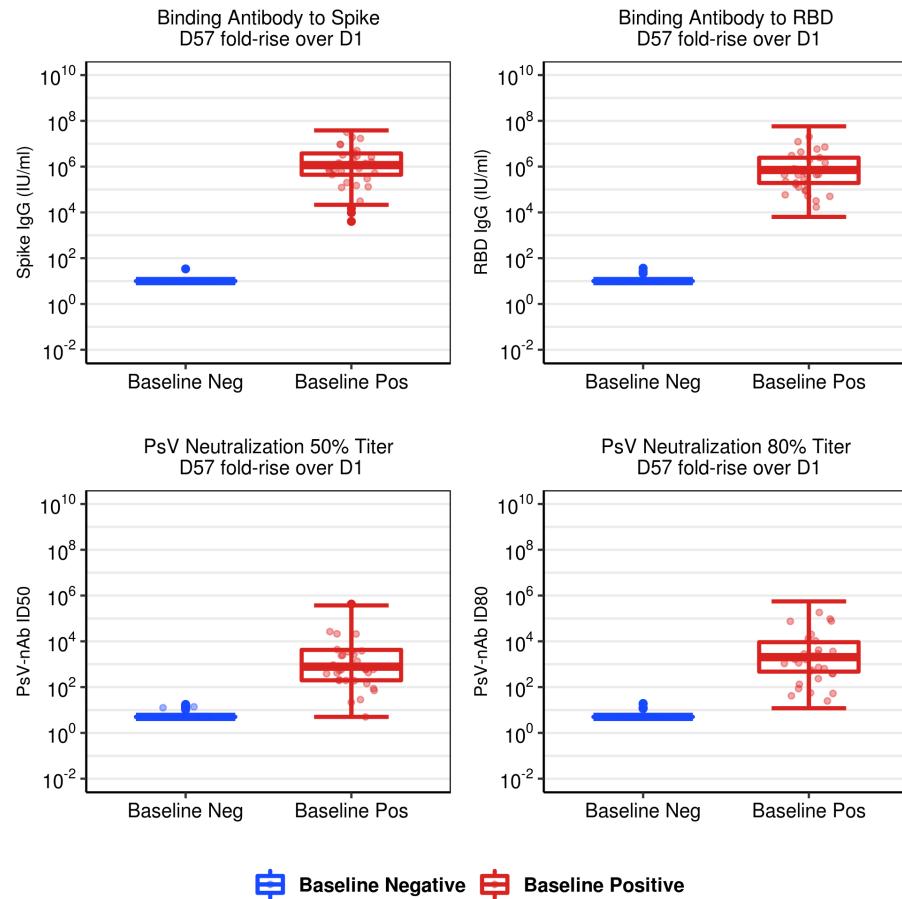


Figure 1.42: (Mock data) Boxplots of D57 fold-rise over D1 Ab markers: baseline positive + negative placebo arm

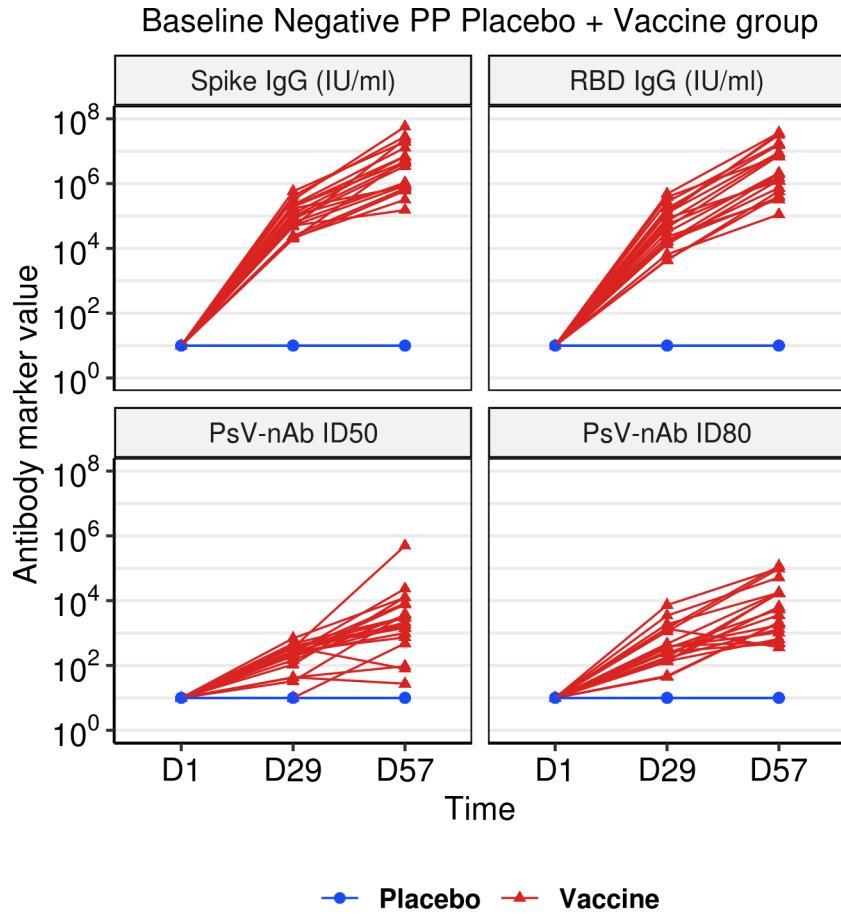


Figure 1.43: (Mock data) Spaghetti plots of Ab markers over time: baseline negative vaccine + placebo arm

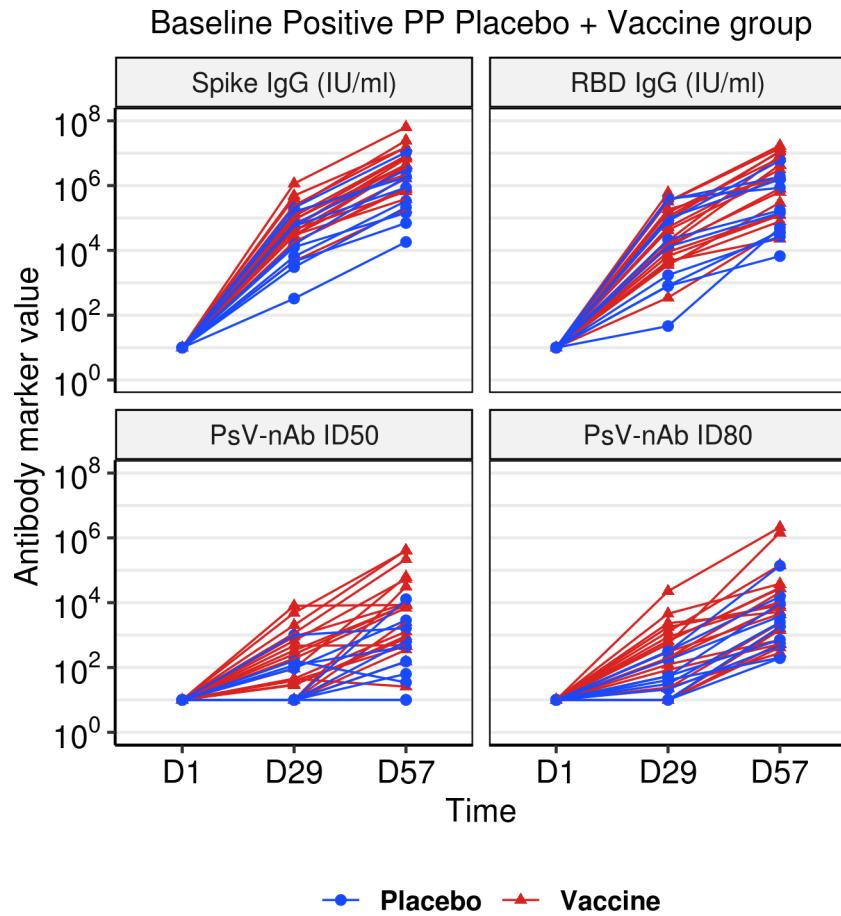


Figure 1.44: (Mock data) Spaghetti plots of Ab markers over time: baseline positive vaccine + placebo arm

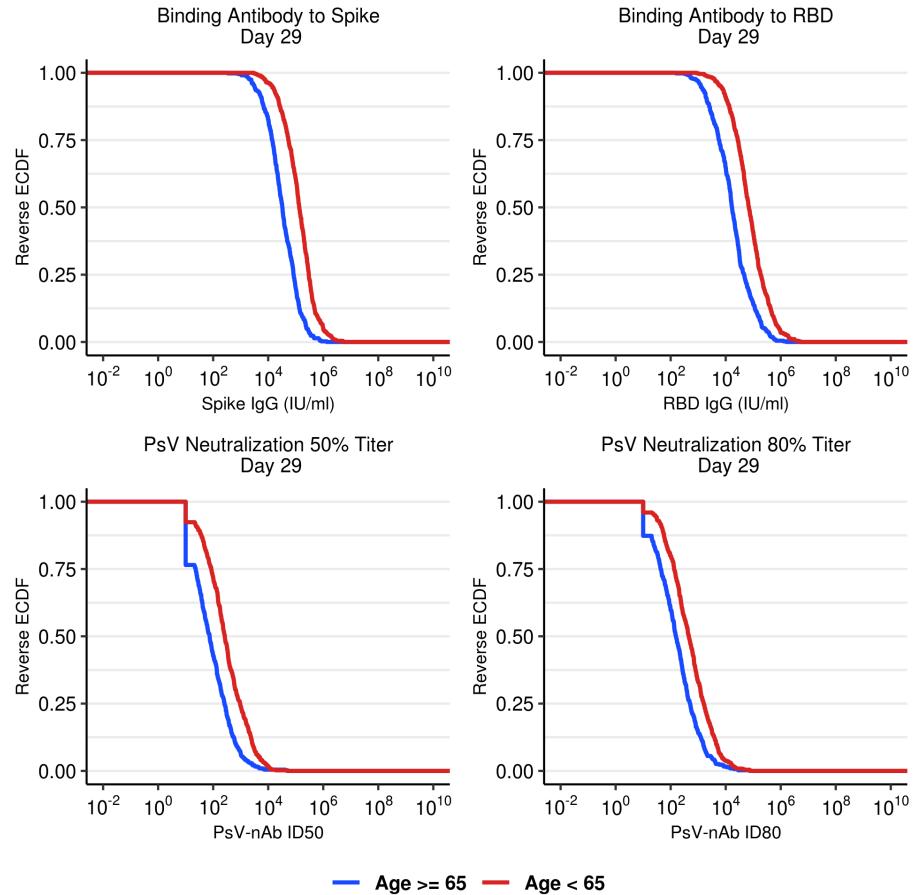


Figure 1.45: (Mock data) RCDF plots for D29 Ab markers: baseline negative vaccine arm by age groups.

1.6. BOXPLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT59

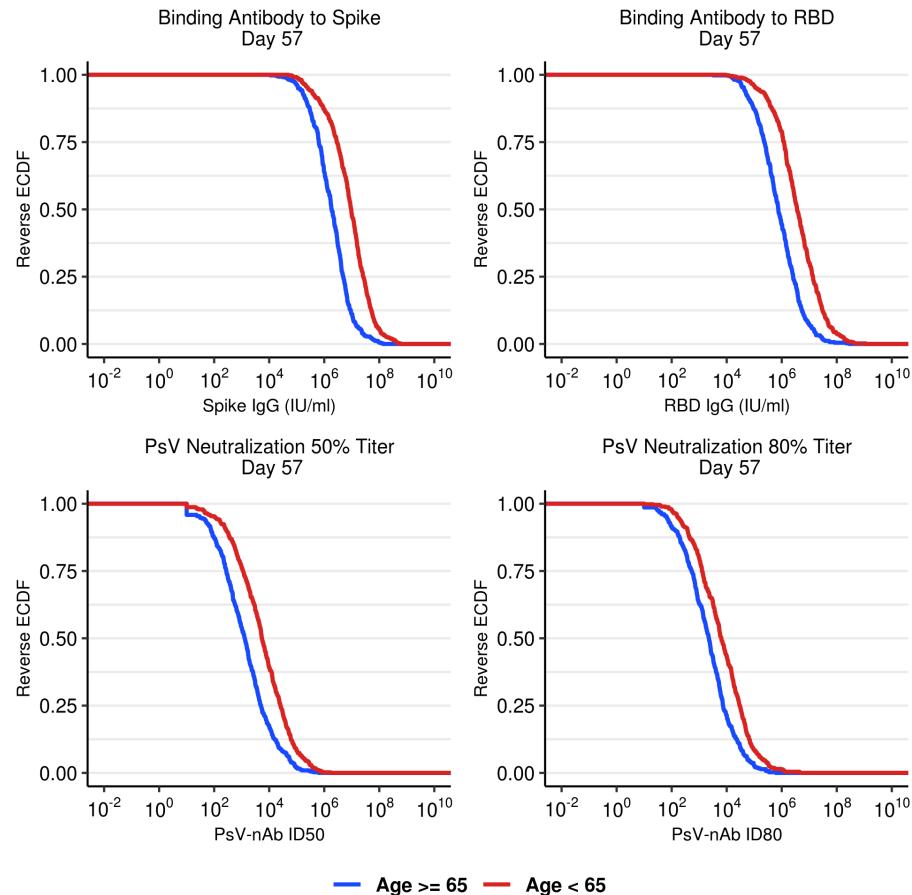


Figure 1.46: (Mock data) RCDF plots for D57 Ab markers: baseline negative vaccine arm by age groups.

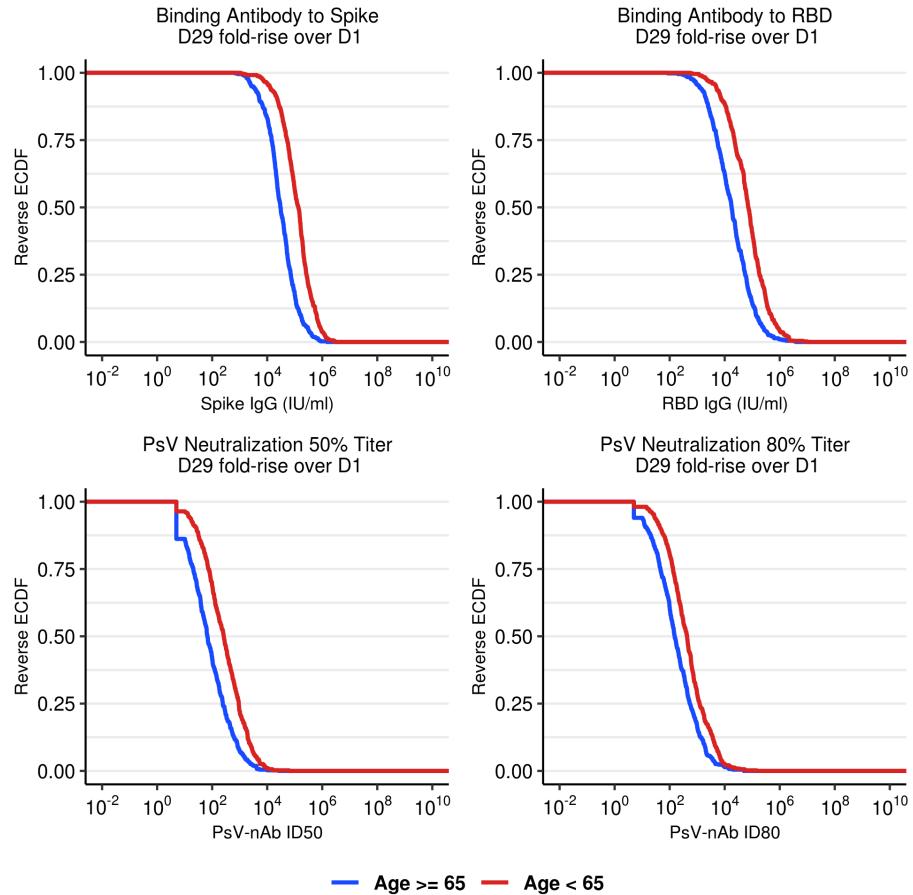


Figure 1.47: (Mock data) RCDF plots for D29 fold-rise over D1 Ab markers: baseline negative vaccine arm by age groups.

1.6. BOXPLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT61

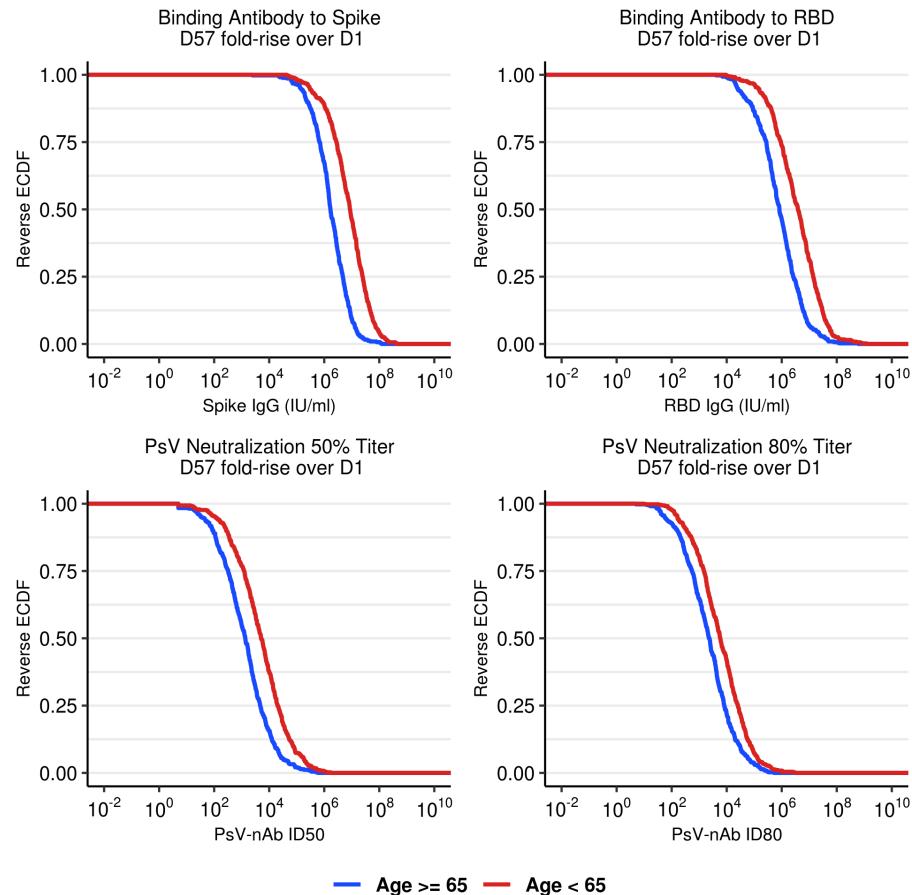


Figure 1.48: (Mock data) RCDF plots for D57 fold-rise over D1 Ab markers: baseline negative vaccine arm by age groups.

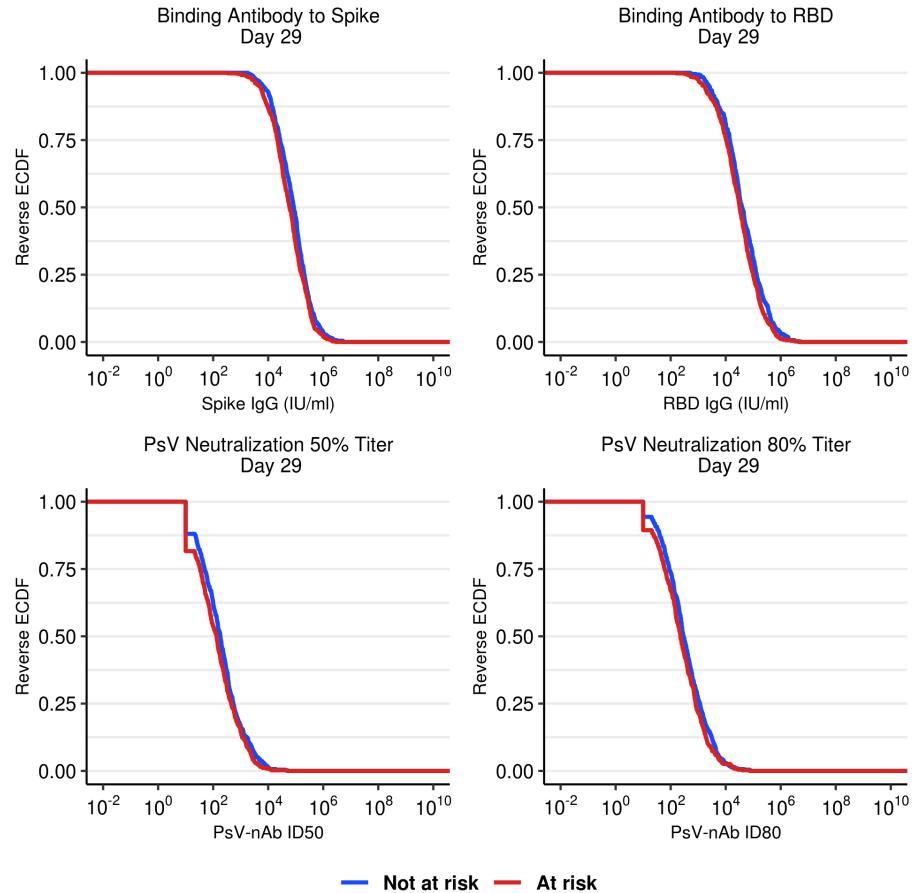


Figure 1.49: (Mock data) RCDF plots for D29 Ab markers: baseline negative vaccine arm by high-risk condition.

1.6. BOXPLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT63

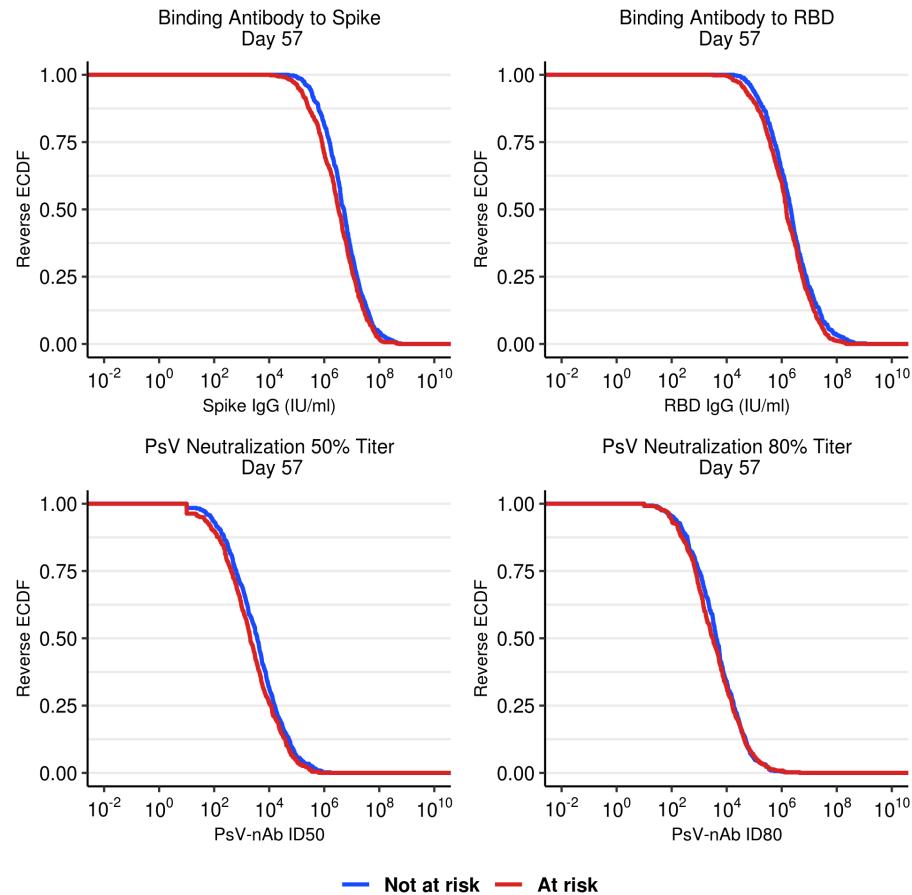


Figure 1.50: (Mock data) RCDF plots for D57 Ab markers: baseline negative vaccine arm by high-risk condition.

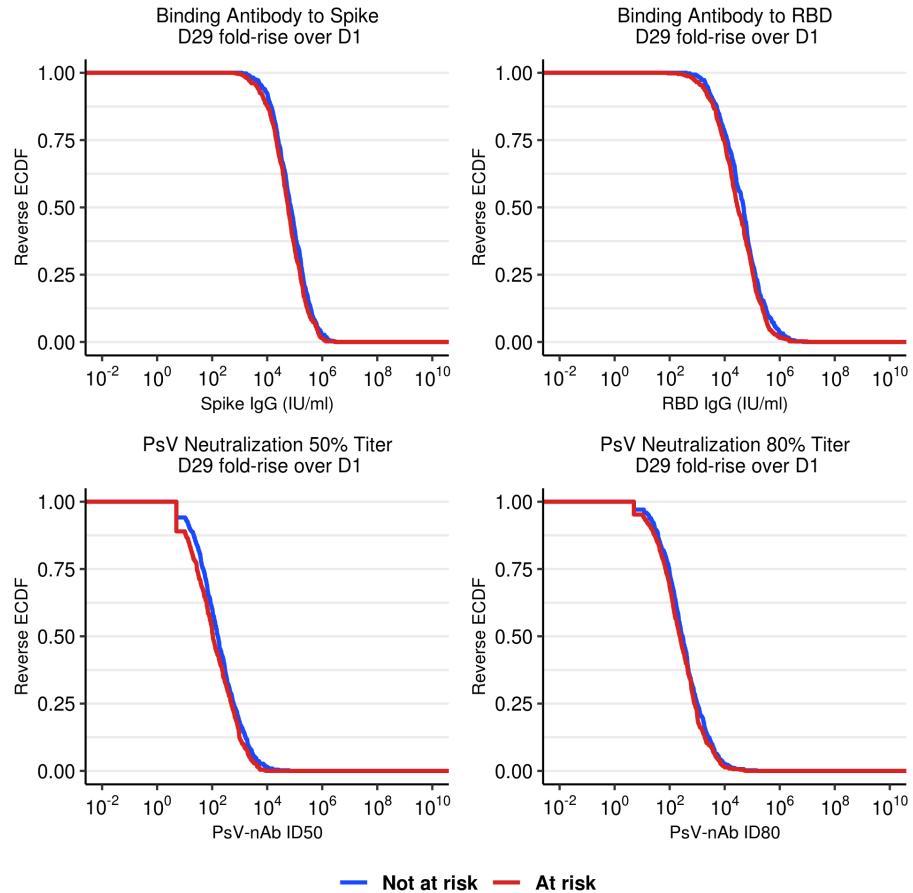


Figure 1.51: (Mock data) RCDF plots for D29 fold-rise over D1 Ab markers: baseline negative vaccine arm by high-risk condition.

## 1.6. BOXPLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT65

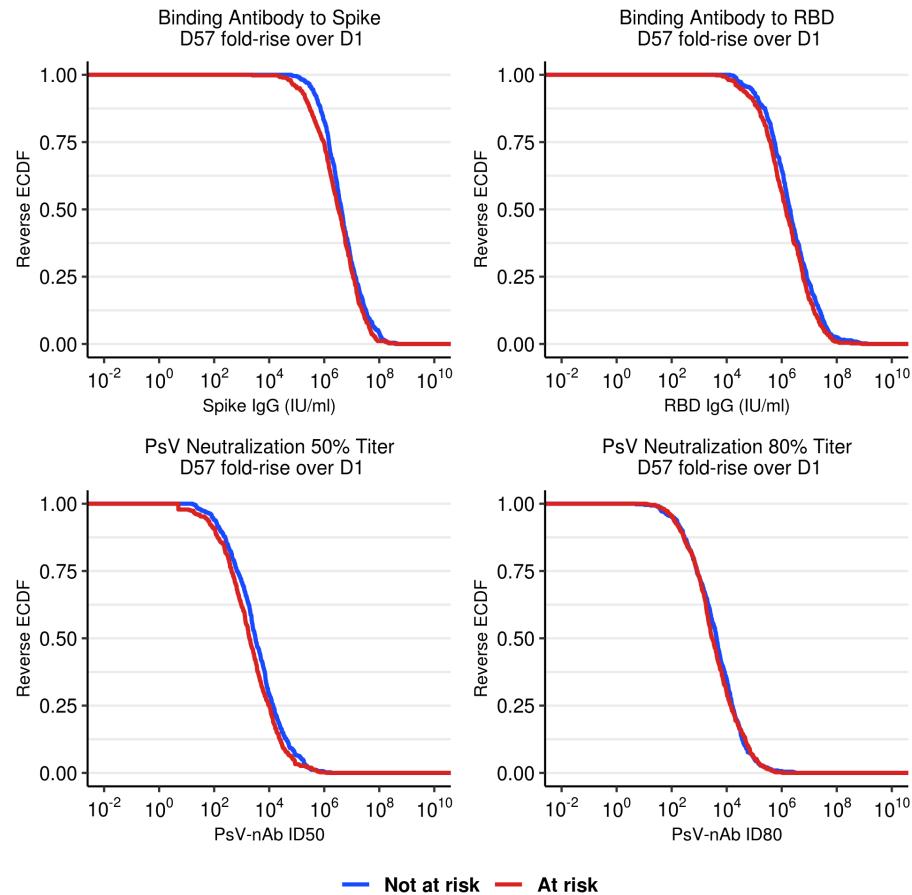


Figure 1.52: (Mock data) RCDF plots for D57 fold-rise over D1 Ab markers: baseline negative vaccine arm by high-risk condition.

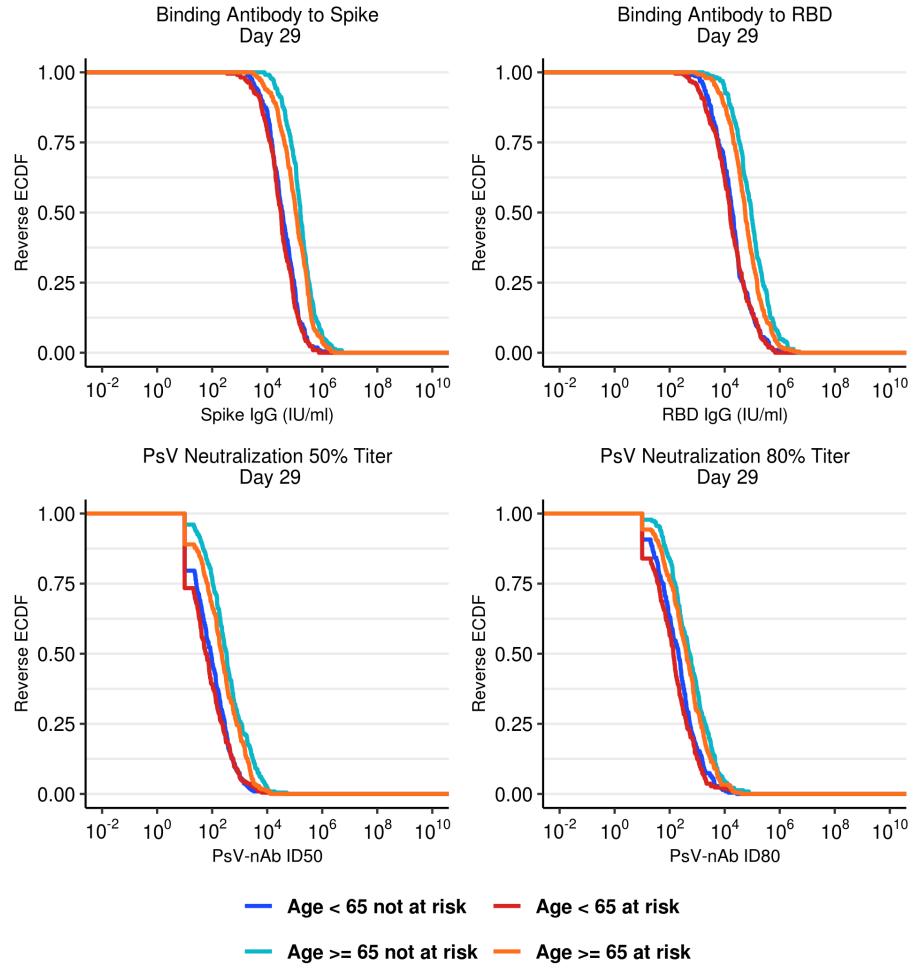


Figure 1.53: (Mock data) RCDF plots for D29 Ab markers: baseline negative vaccine arm by age and high-risk condition.

## 1.6. BOXPLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT67

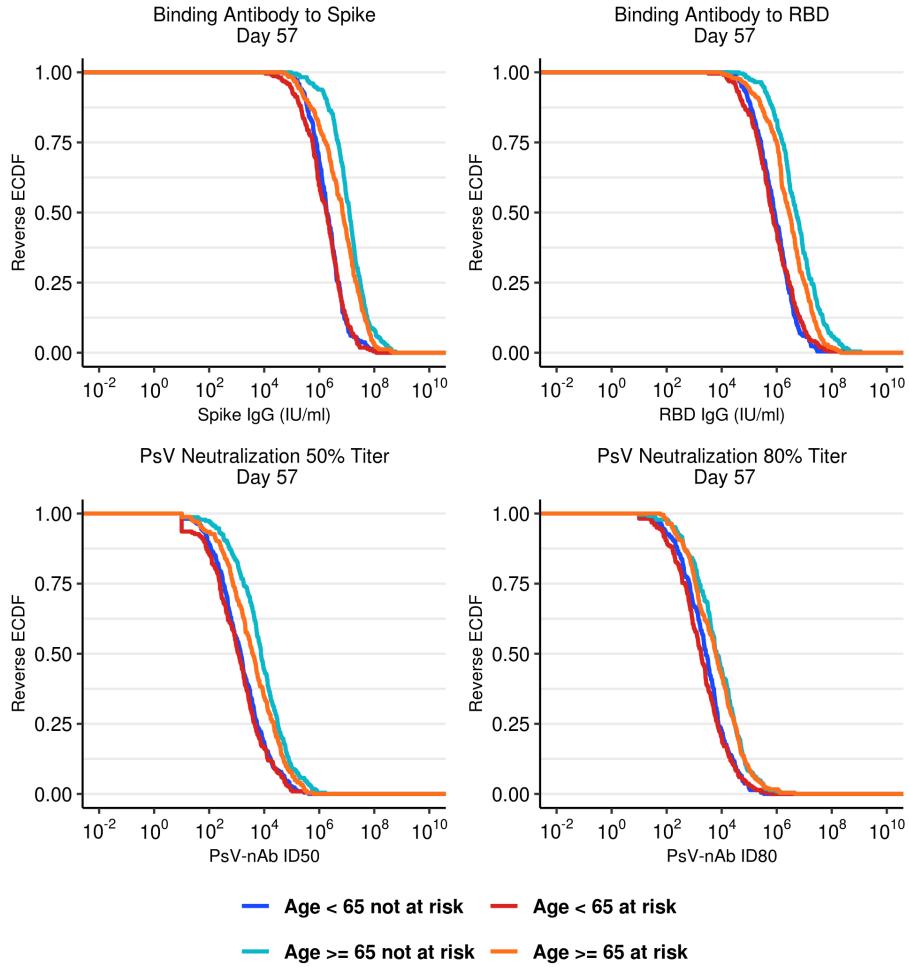


Figure 1.54: (Mock data) RCDF plots for D57 Ab markers: baseline negative vaccine arm by age and high-risk condition.

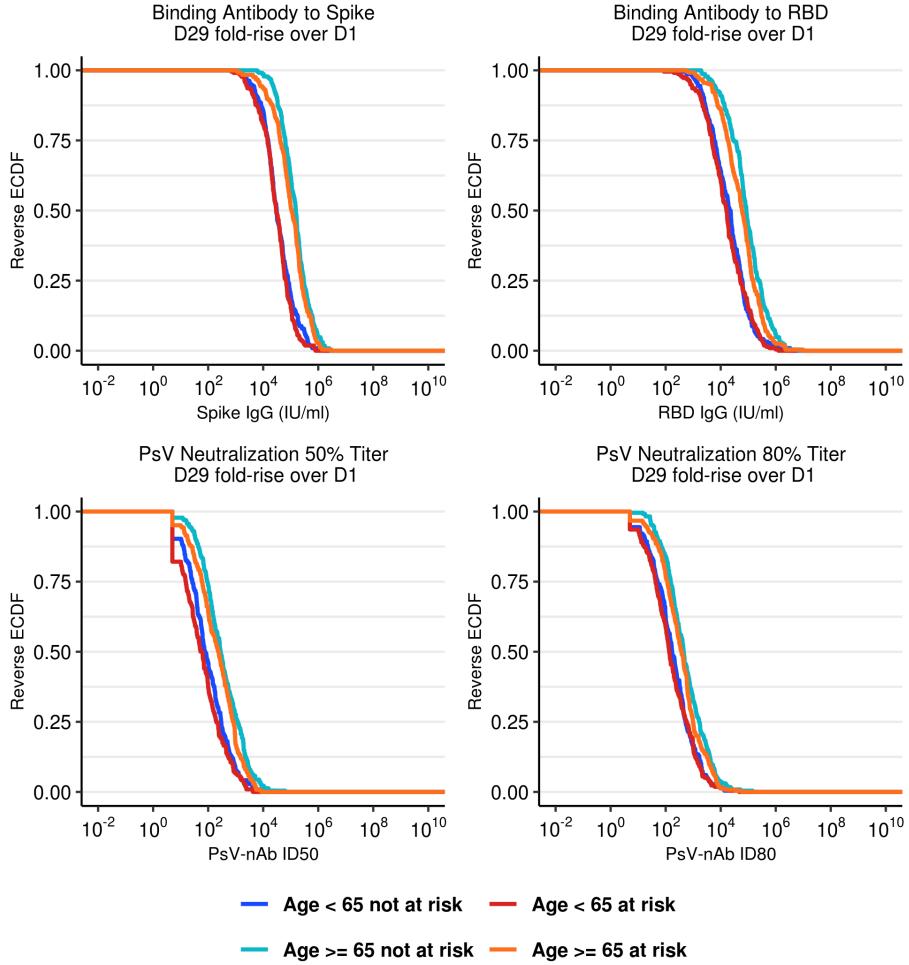


Figure 1.55: (Mock data) RCDF plots for D29 fold-rise over D1 Ab markers: baseline negative vaccine arm by age and high-risk condition.

## 1.6. BOXPLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT69

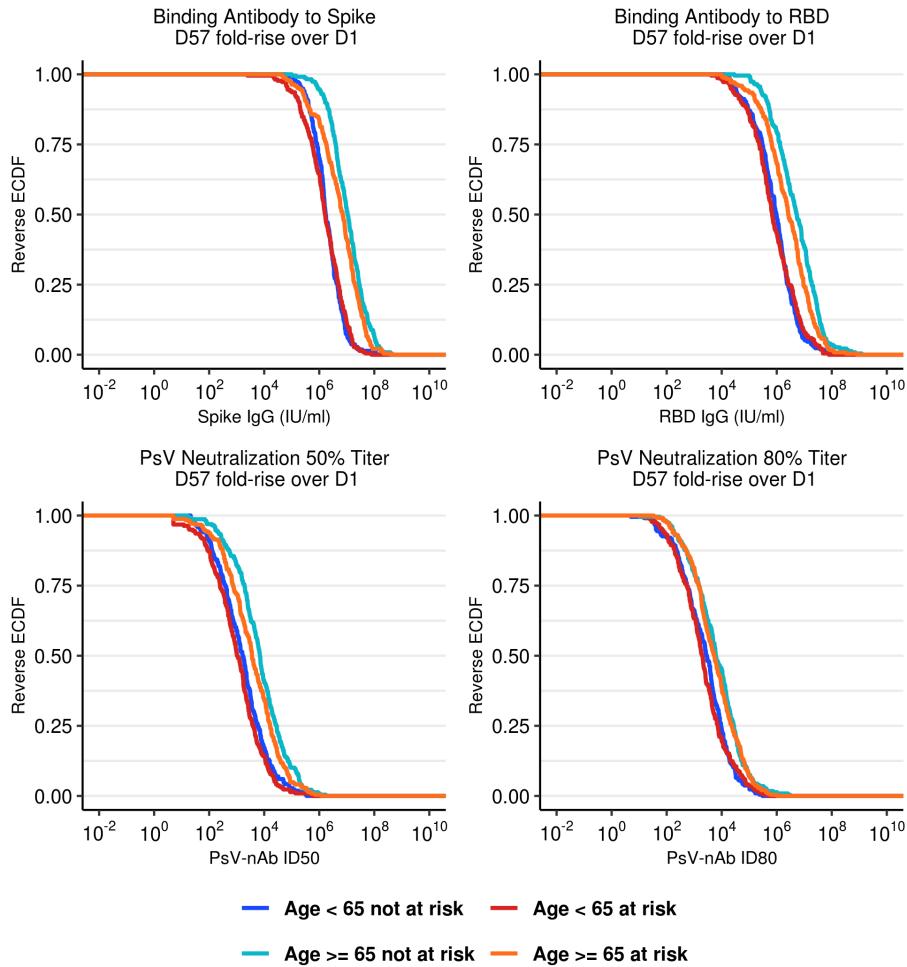


Figure 1.56: (Mock data) RCDF plots for D57 fold-rise over D1 Ab markers: baseline negative vaccine arm by age and high-risk condition.

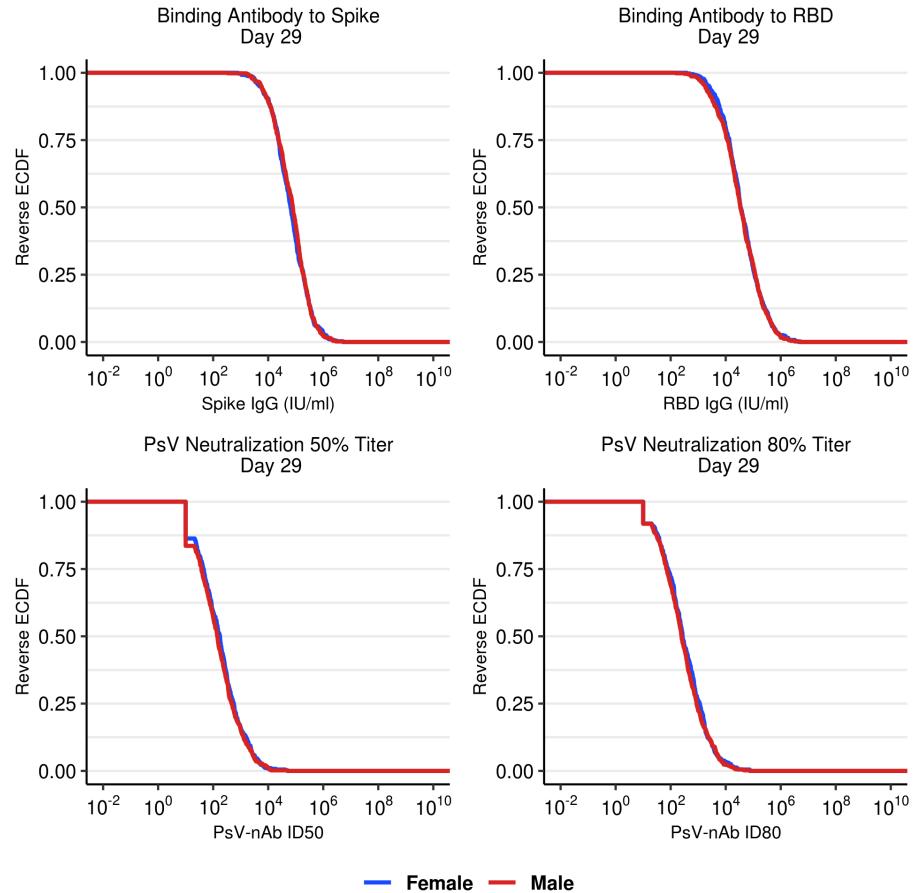


Figure 1.57: (Mock data) RCDF plots for D29 Ab markers: baseline negative vaccine arm by sex assigned at birth.

1.6. BOXPLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT71

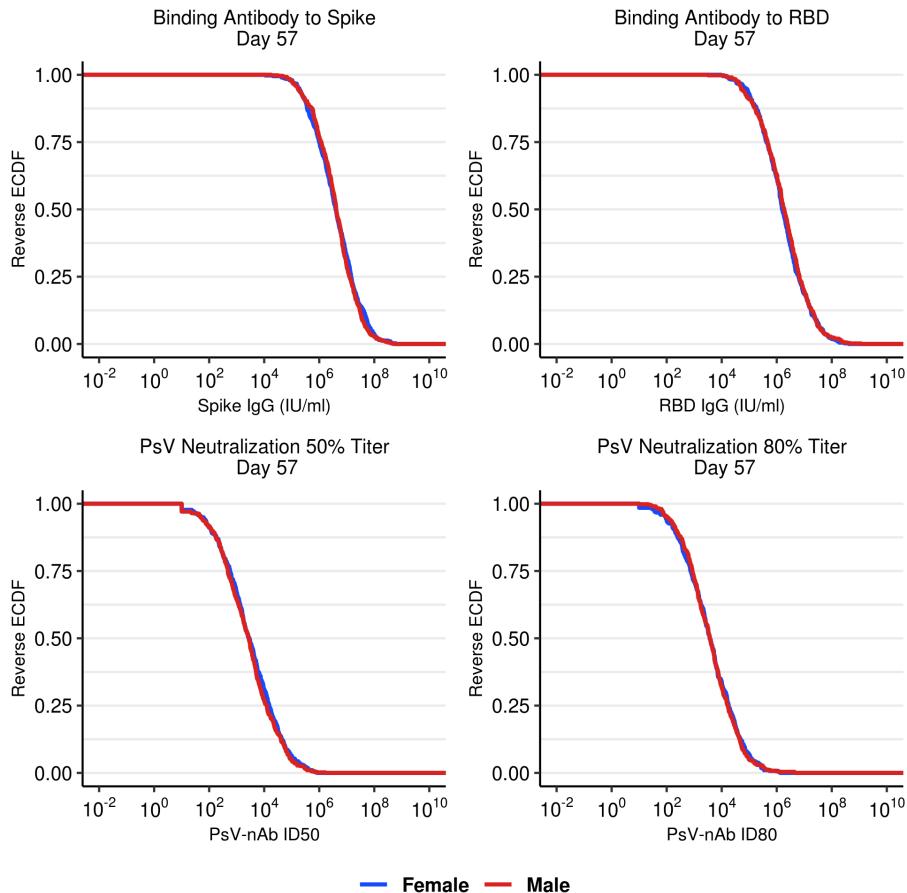


Figure 1.58: (Mock data) RCDF plots for D57 Ab markers: baseline negative vaccine arm by sex assigned at birth.

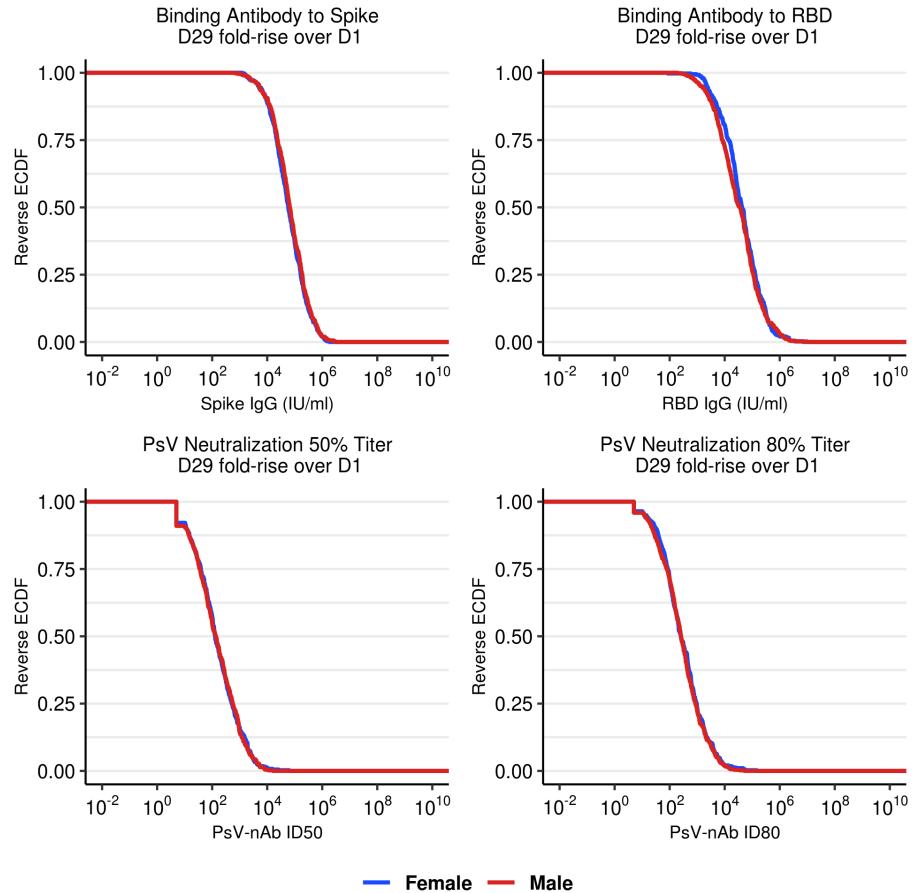


Figure 1.59: (Mock data) RCDF plots for D29 fold-rise over D1 Ab markers: baseline negative vaccine arm by sex assigned at birth.

## 1.6. BOXPLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT73

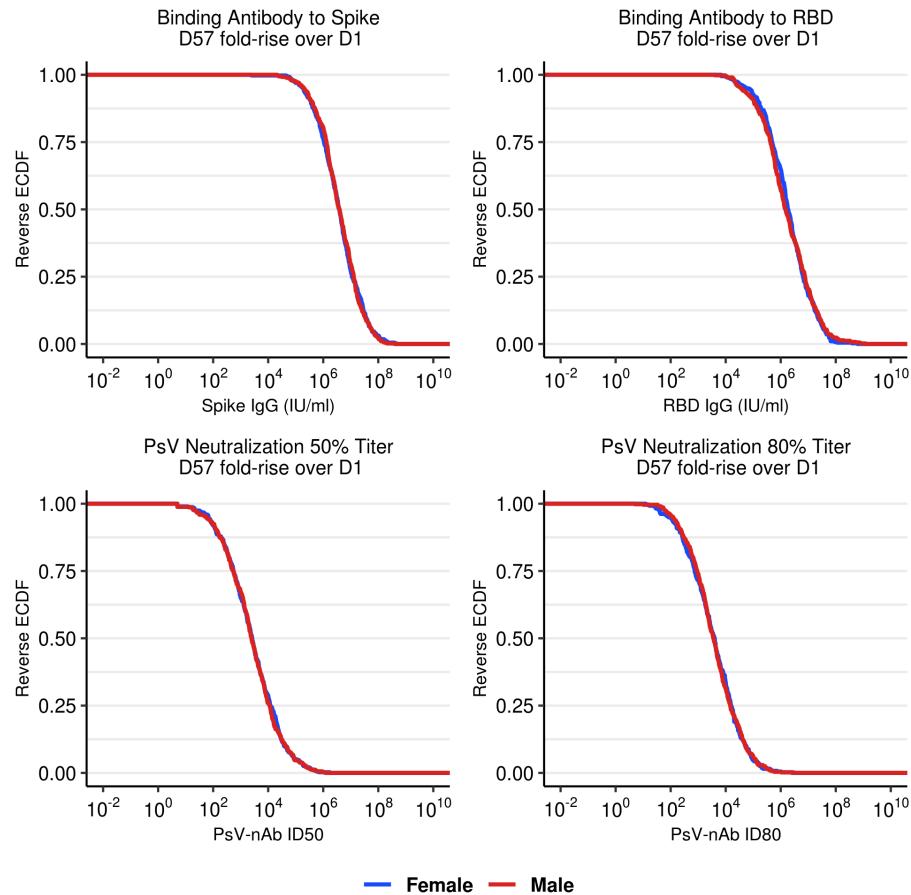


Figure 1.60: (Mock data) RCDF plots for D57 fold-rise over D1 Ab markers: baseline negative vaccine arm by sex assigned at birth.

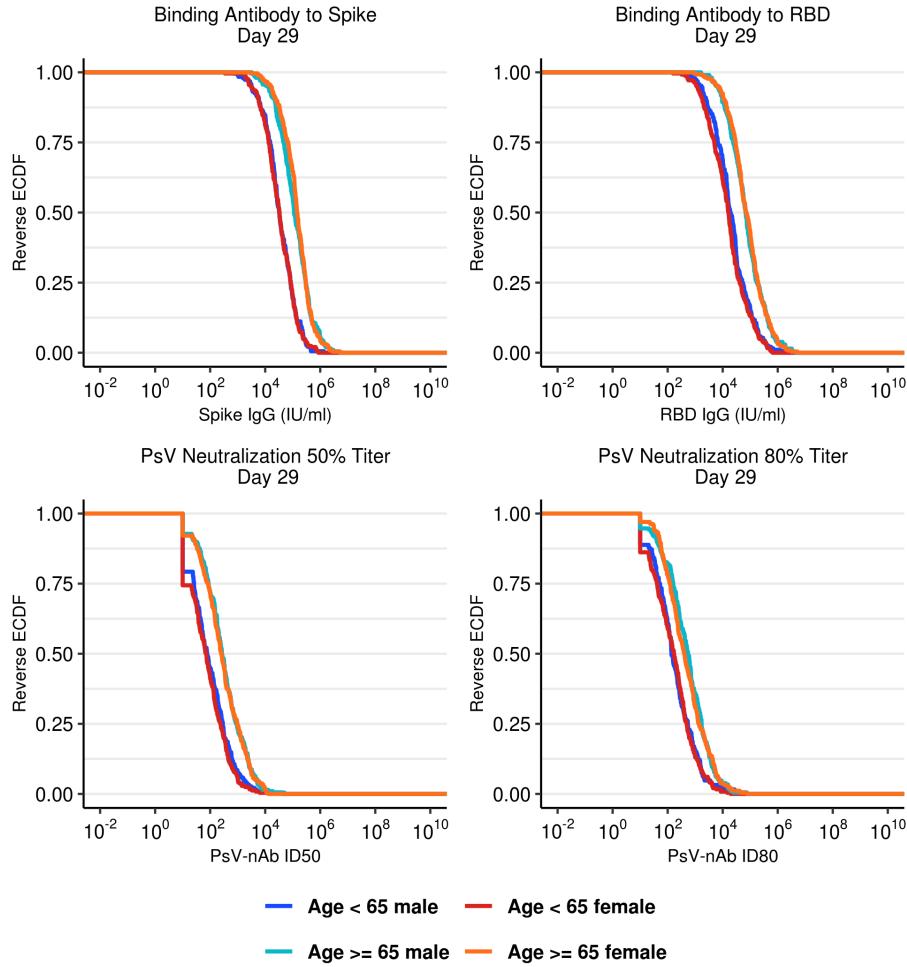


Figure 1.61: (Mock data) RCDF plots for D29 Ab markers: baseline negative vaccine arm by age and sex assigned at birth.

## 1.6. BOXPLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT75

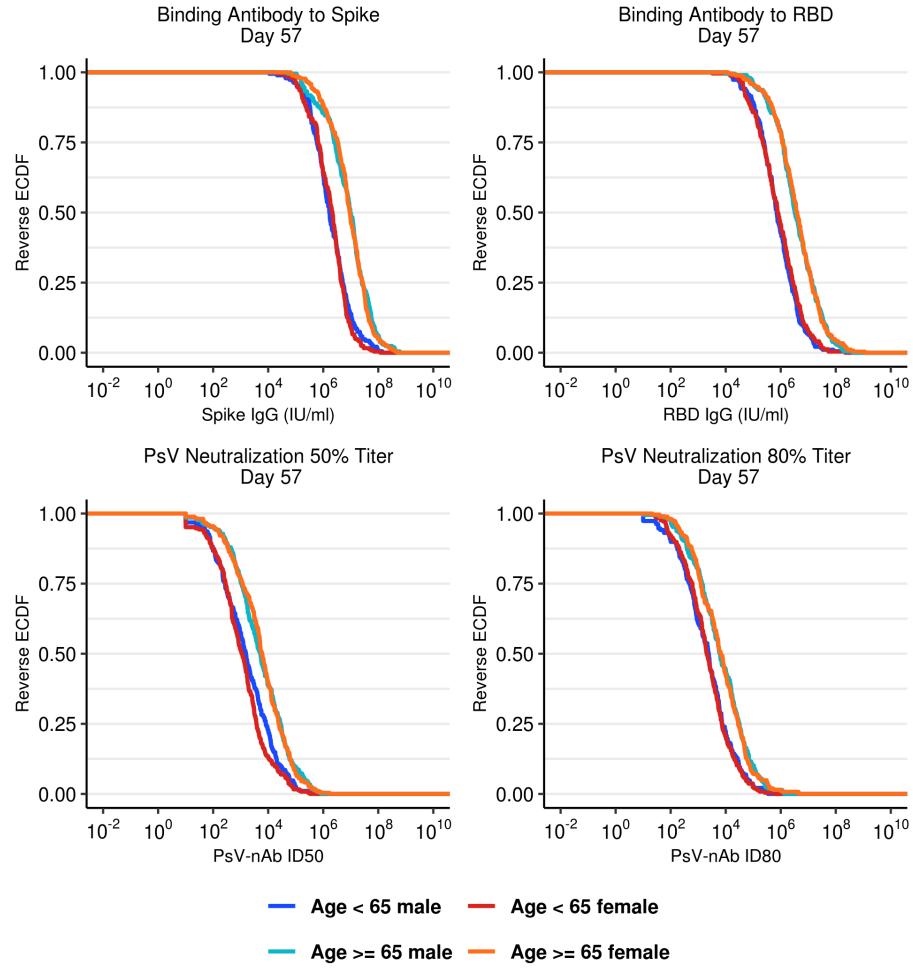


Figure 1.62: (Mock data) RCDF plots for D57 Ab markers: baseline negative vaccine arm by age and sex assigned at birth.

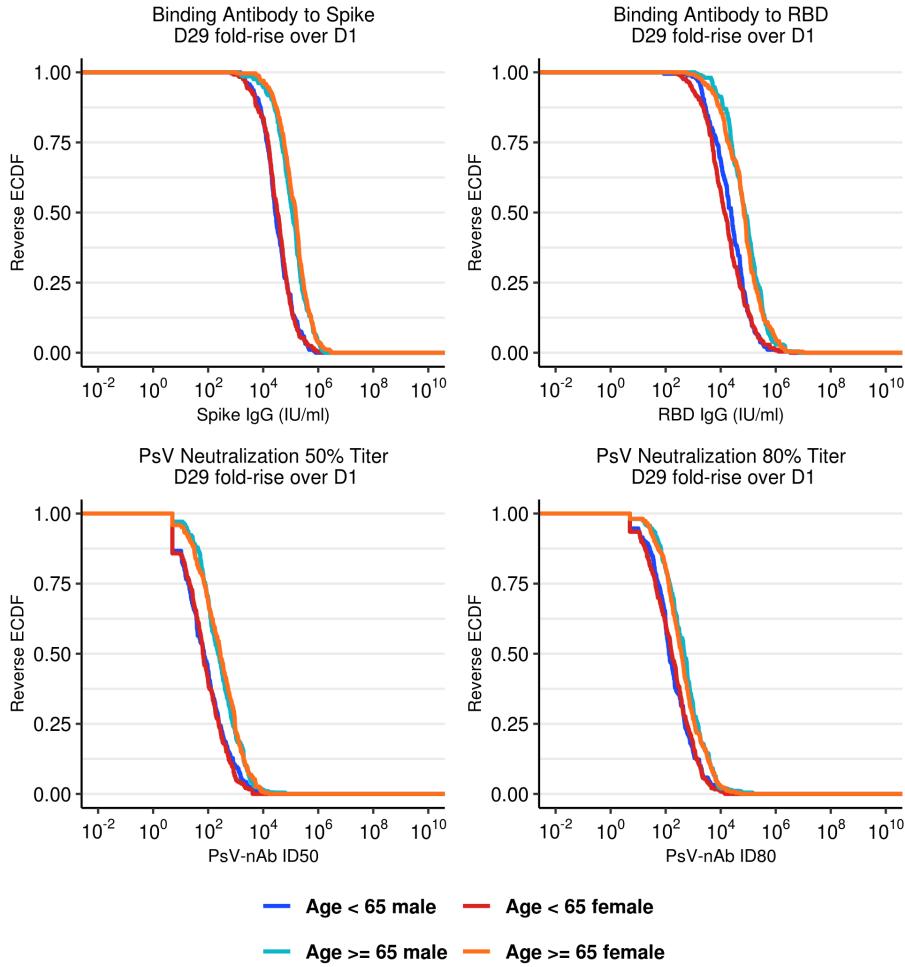


Figure 1.63: (Mock data) RCDF plots for D29 fold-rise over D1 Ab markers: baseline negative vaccine arm by age and sex assigned at birth.

1.6. BOXPLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT77

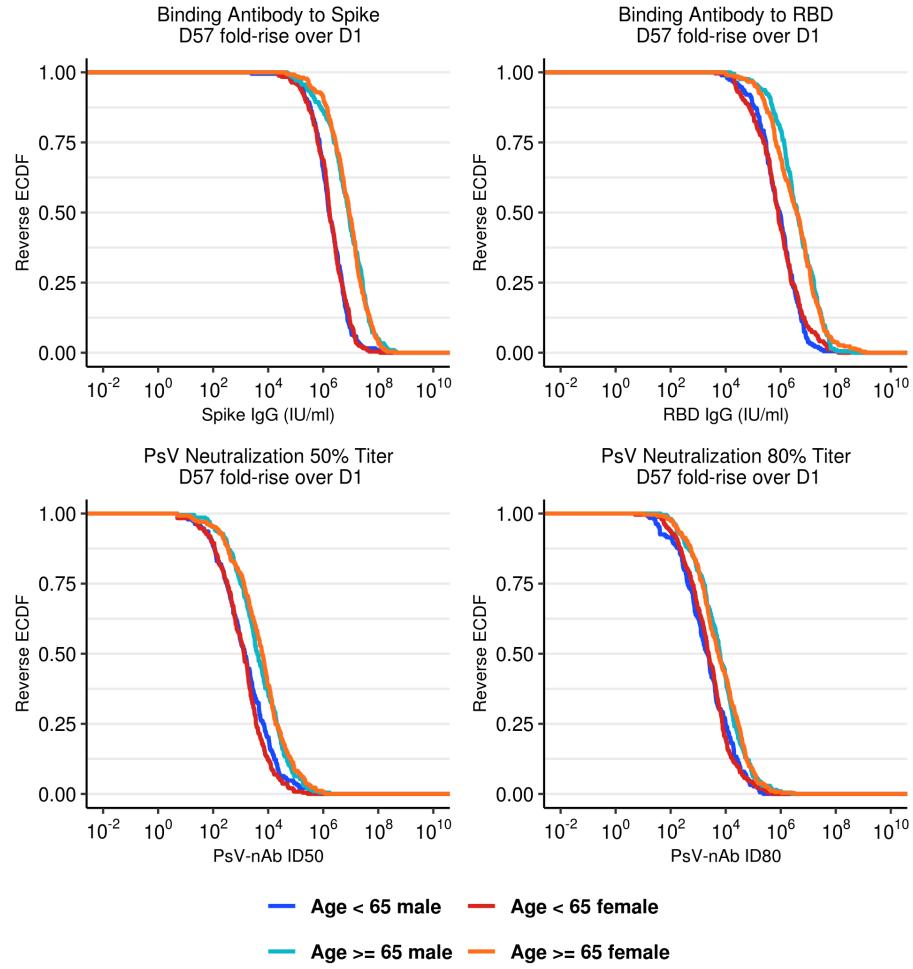


Figure 1.64: (Mock data) RCDF plots for D57 fold-rise over D1 Ab markers: baseline negative vaccine arm by age and sex at birth.

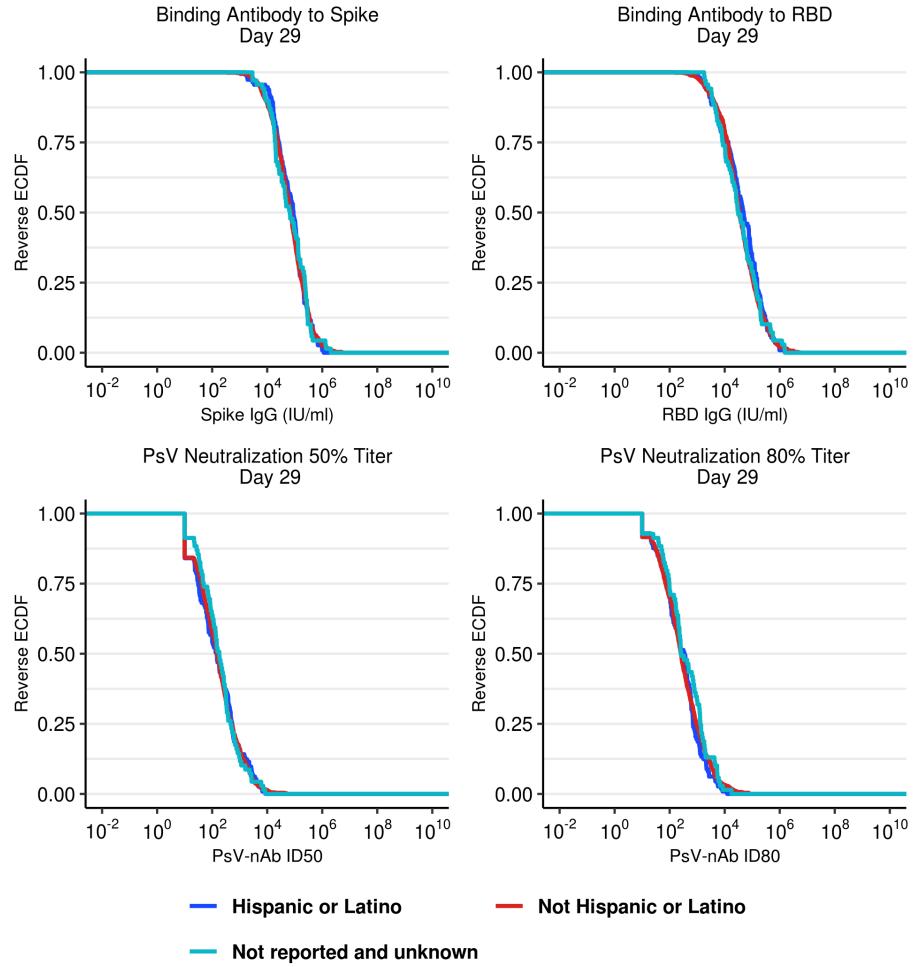


Figure 1.65: (Mock data) RCDF plots for D29 Ab markers: baseline negative vaccine arm by ethnicity.

1.6. BOXPLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT79

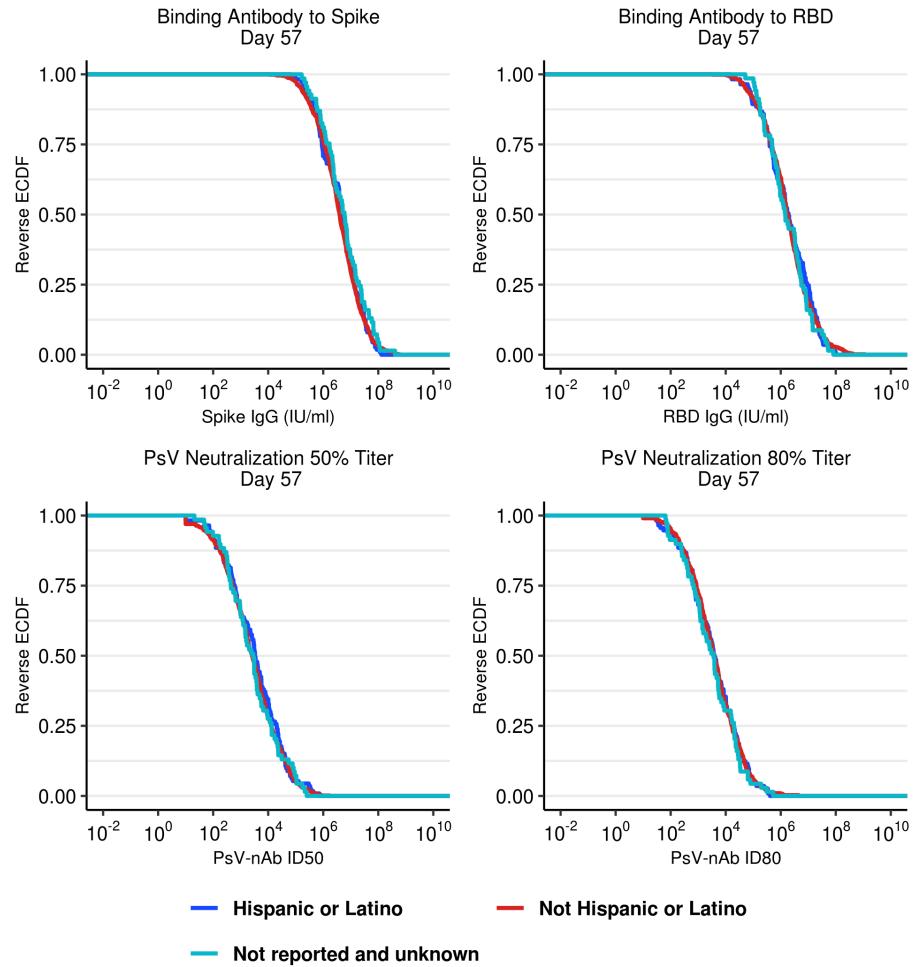


Figure 1.66: (Mock data) RCDF plots for D57 Ab markers: baseline negative vaccine arm by ethnicity.

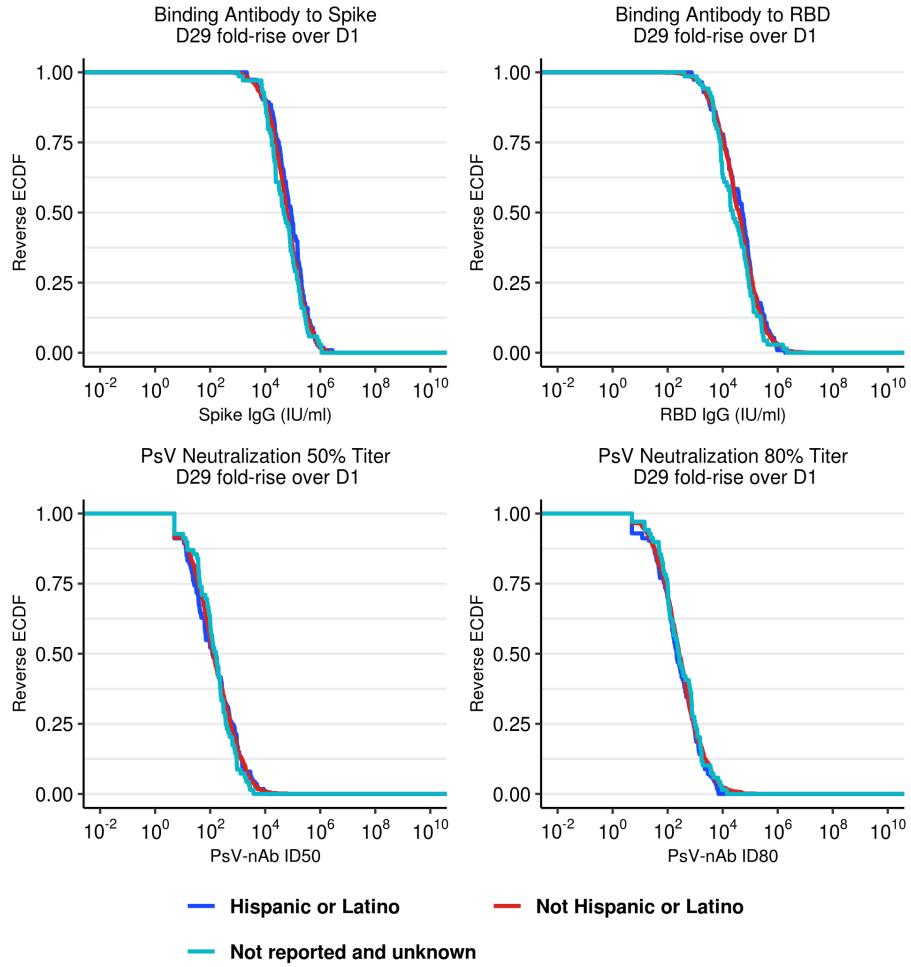


Figure 1.67: (Mock data) RCDF plots for D29 fold-rise over D1 Ab markers: baseline negative vaccine arm by ethnicity.

## 1.6. BOXPLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT81

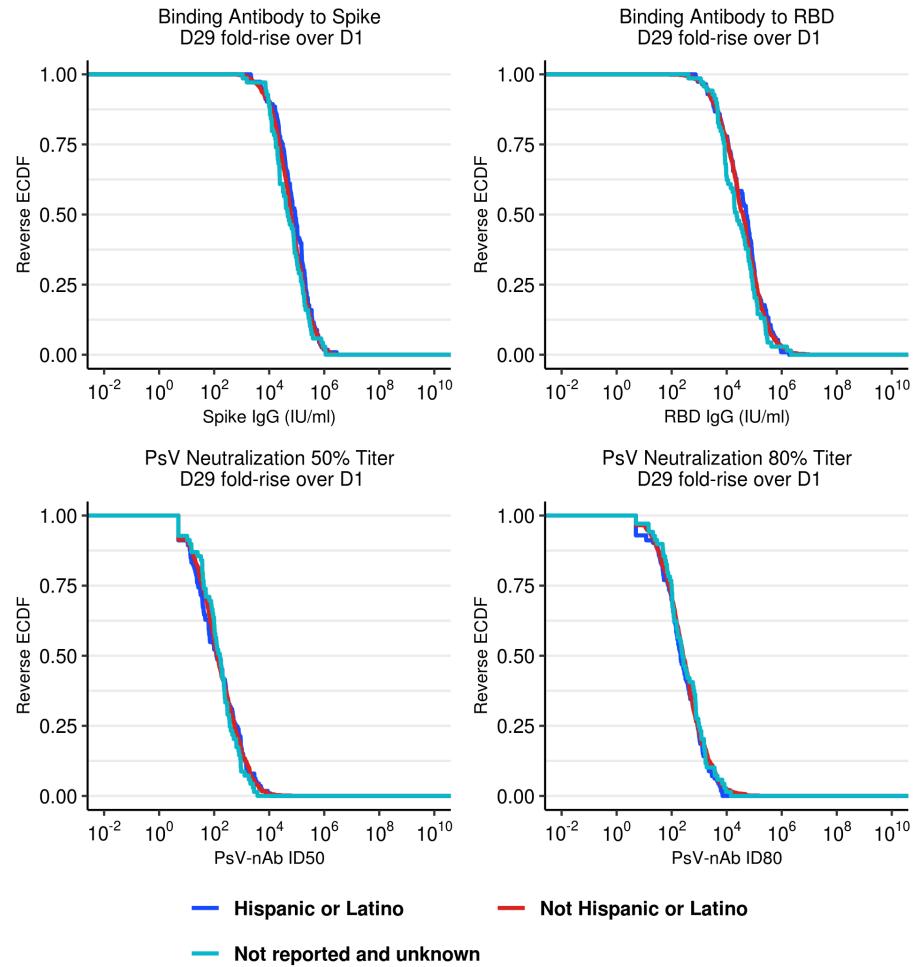


Figure 1.68: (Mock data) RCDF plots for D29 fold-rise over D1 Ab markers: baseline negative vaccine arm by ethnicity.

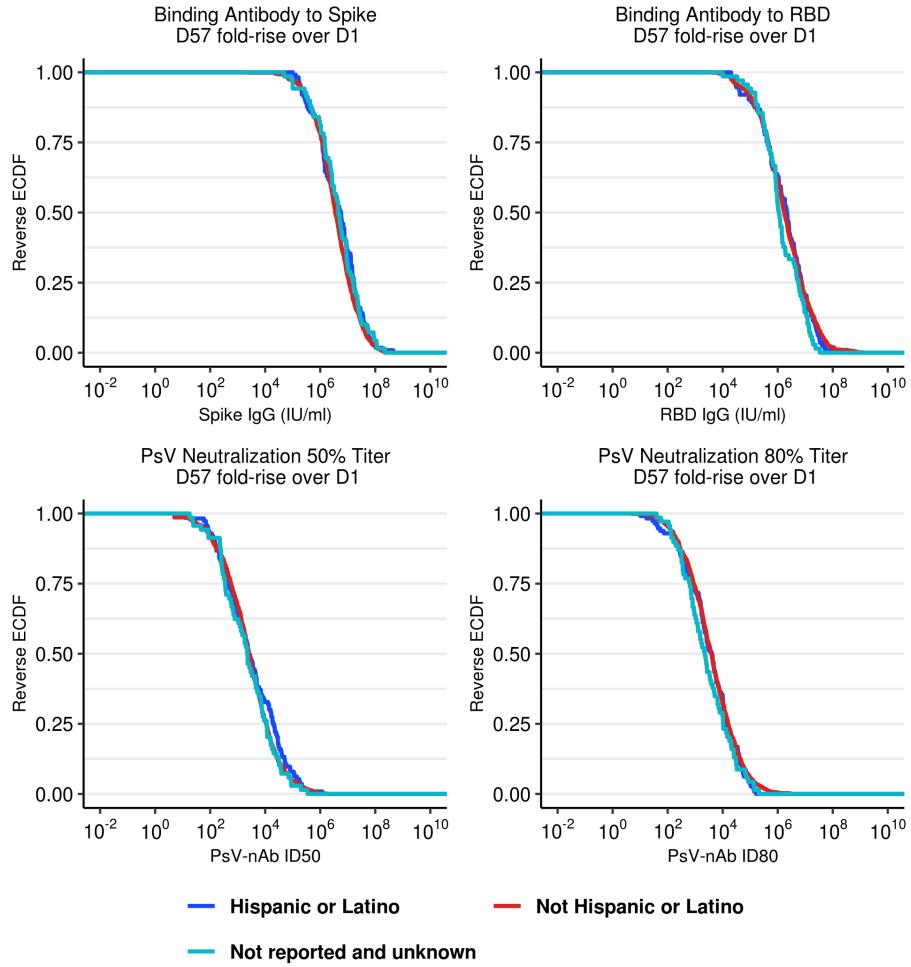


Figure 1.69: (Mock data) RCDF plots for D57 fold-rise over D1 Ab markers: baseline negative vaccine arm by ethnicity.

1.6. BOXPLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT83

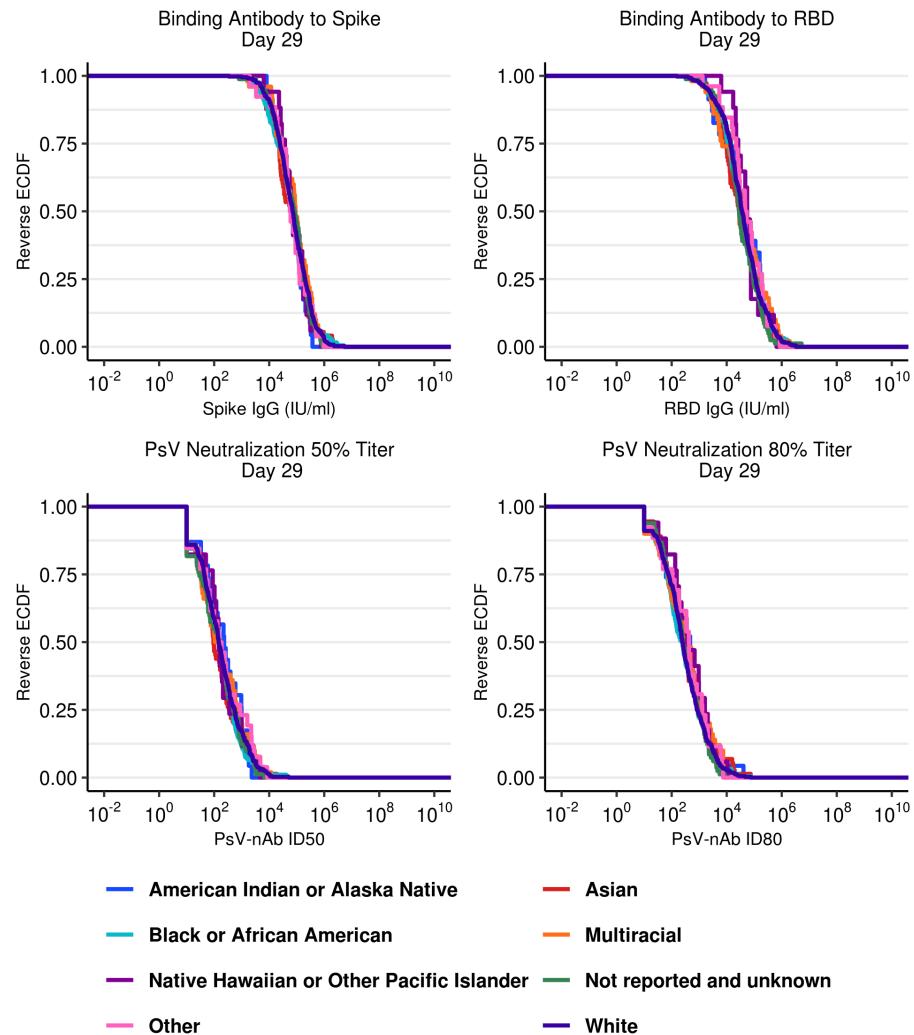


Figure 1.70: (Mock data) RCDF plots for D29 Ab markers: baseline negative vaccine arm by race.

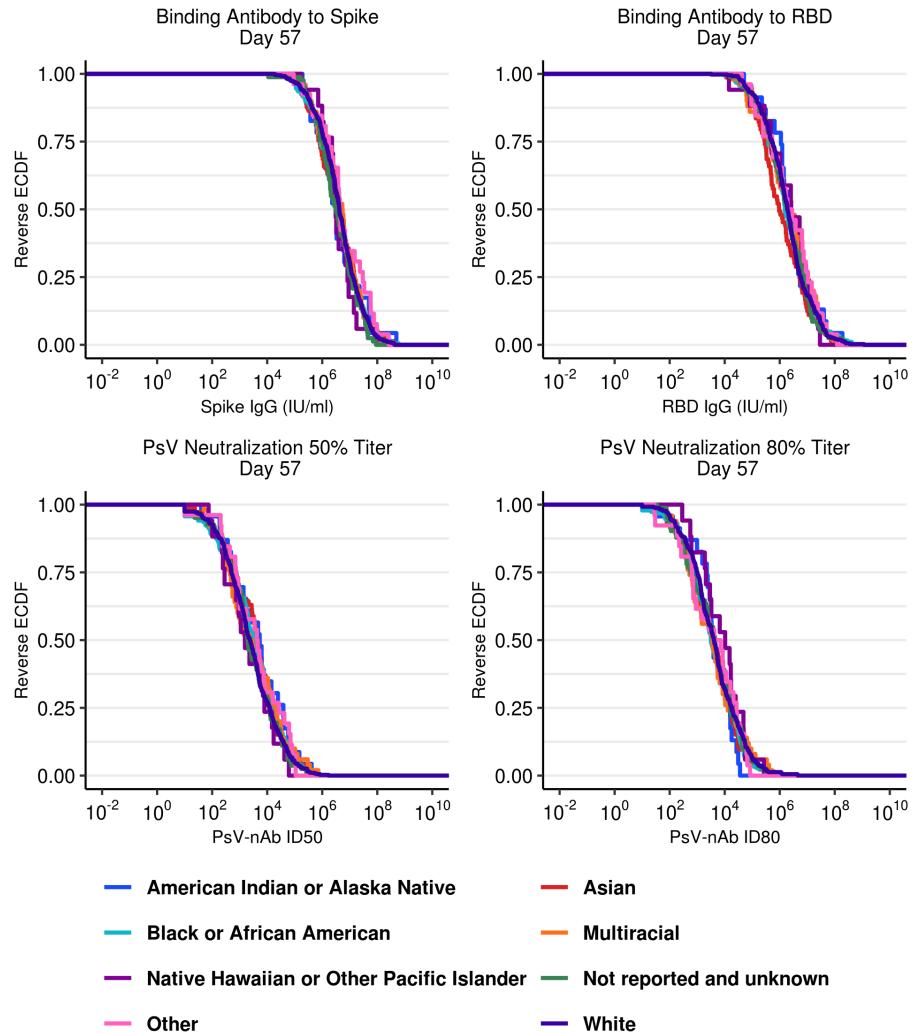


Figure 1.71: (Mock data) RCDF plots for D57 Ab markers: baseline negative vaccine arm by race.

1.6. BOXPLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT85

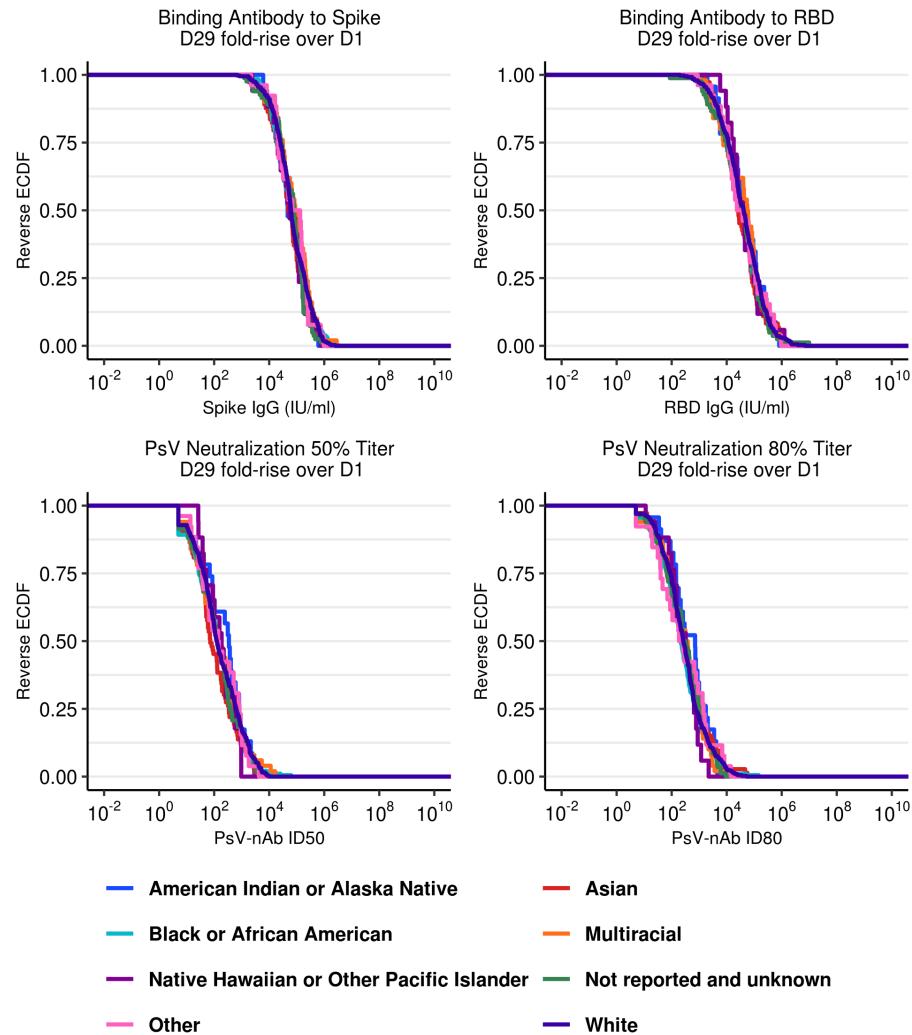


Figure 1.72: (Mock data) RCDF plots for D29 fold-rise over D1 Ab markers: baseline negative vaccine arm by race.

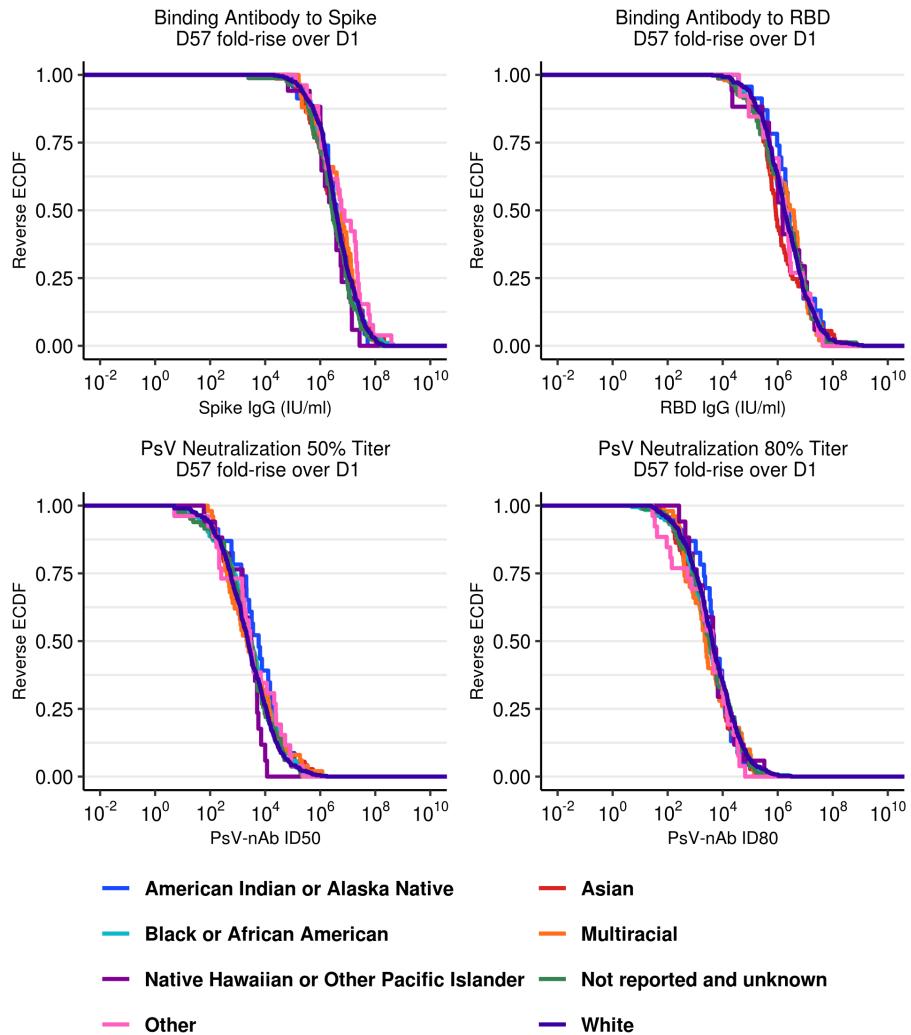


Figure 1.73: (Mock data) RCDF plots for D57 fold-rise over D1 Ab markers: baseline negative vaccine arm by race.

1.6. BOXPLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT87

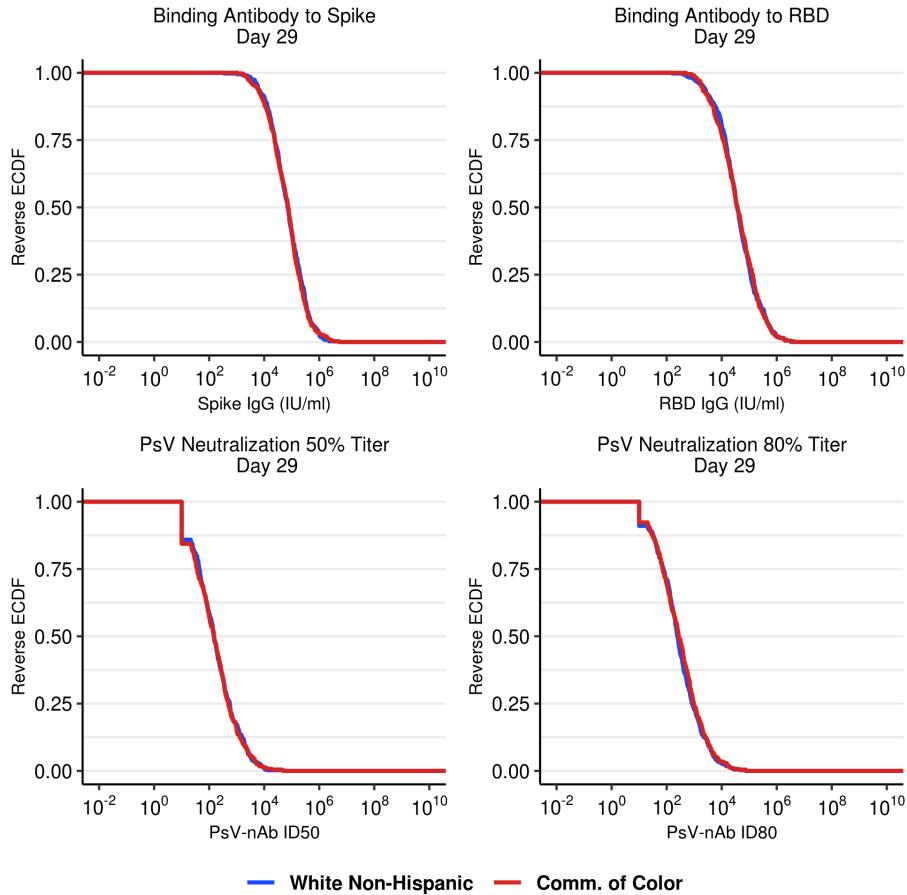


Figure 1.74: (Mock data) RCDF plots for D29 Ab markers: baseline negative vaccine arm by dichotomous classification of race and ethnic group.

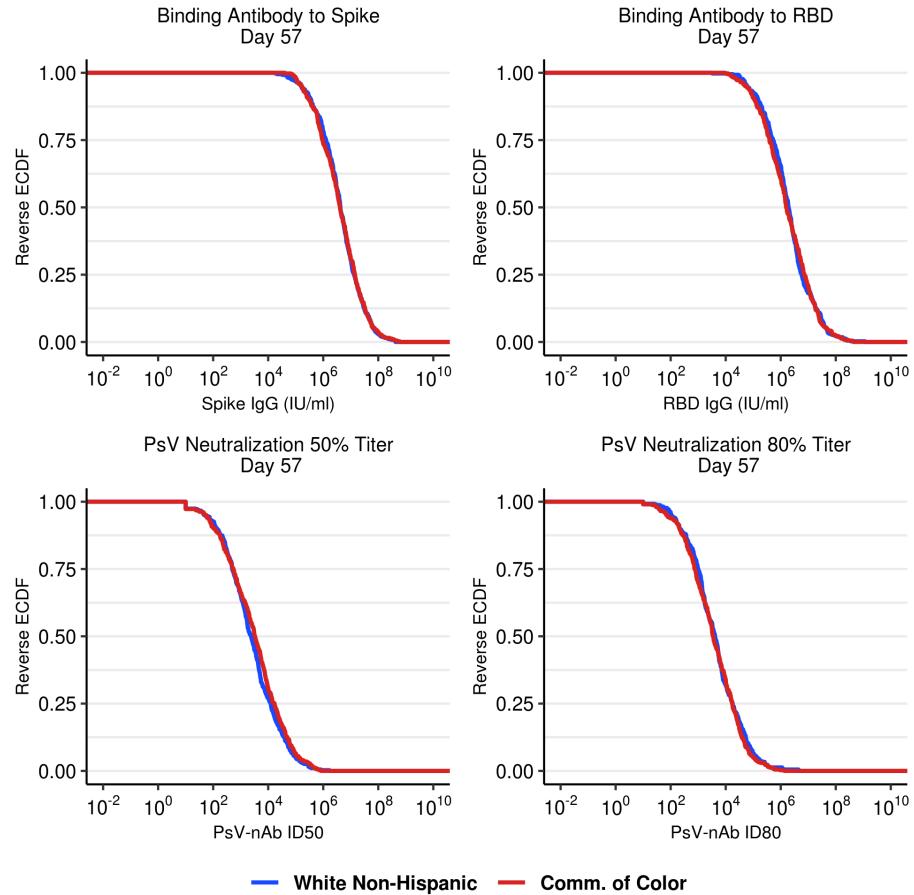


Figure 1.75: (Mock data) RCDF plots for D57 Ab markers: baseline negative vaccine arm by dichotomous classification of race and ethnic group.

1.6. BOXPLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT89

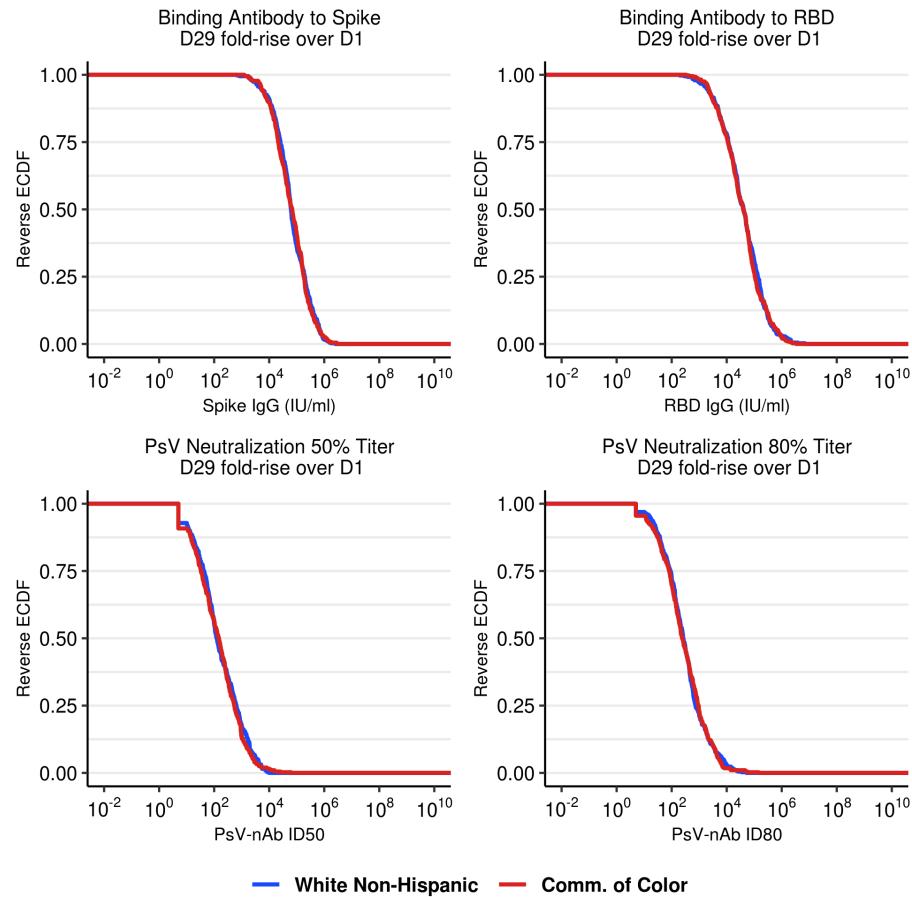


Figure 1.76: (Mock data) RCDF plots for D29 fold-rise over D1 Ab markers: baseline negative vaccine arm by dichotomous classification of race and ethnic group.

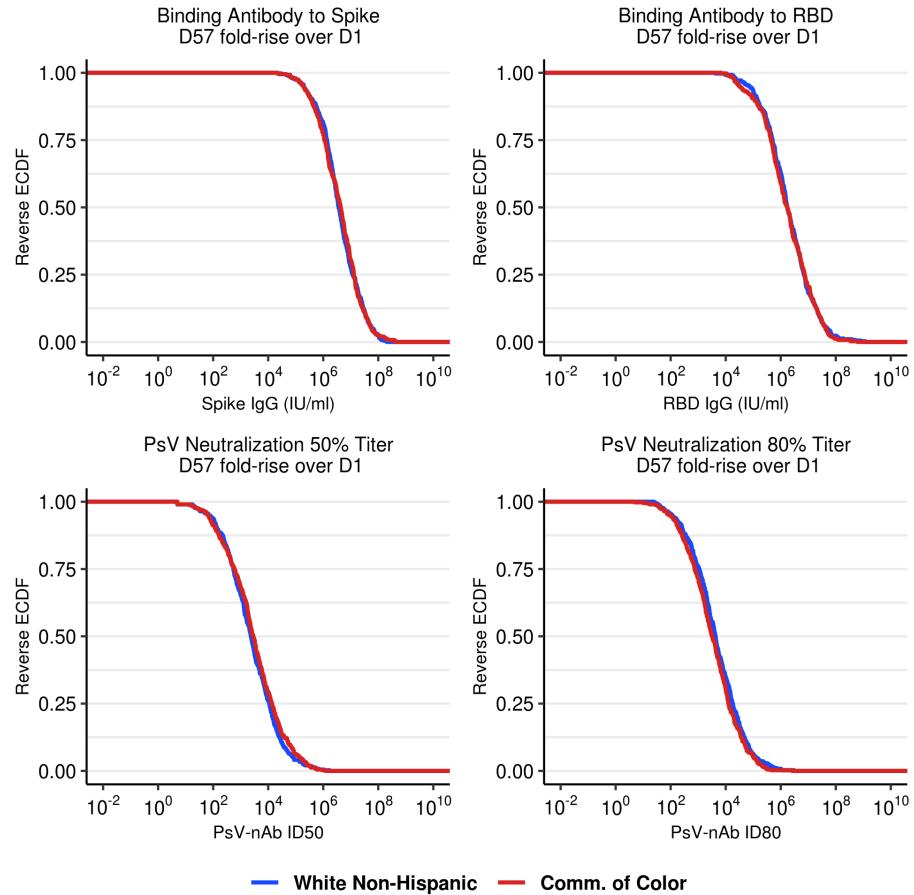


Figure 1.77: (Mock data) RCDF plots for D57 fold-rise over D1 Ab markers: baseline negative vaccine arm by dichotomous classification of race and ethnic group.

## 1.6. BOXPLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT91

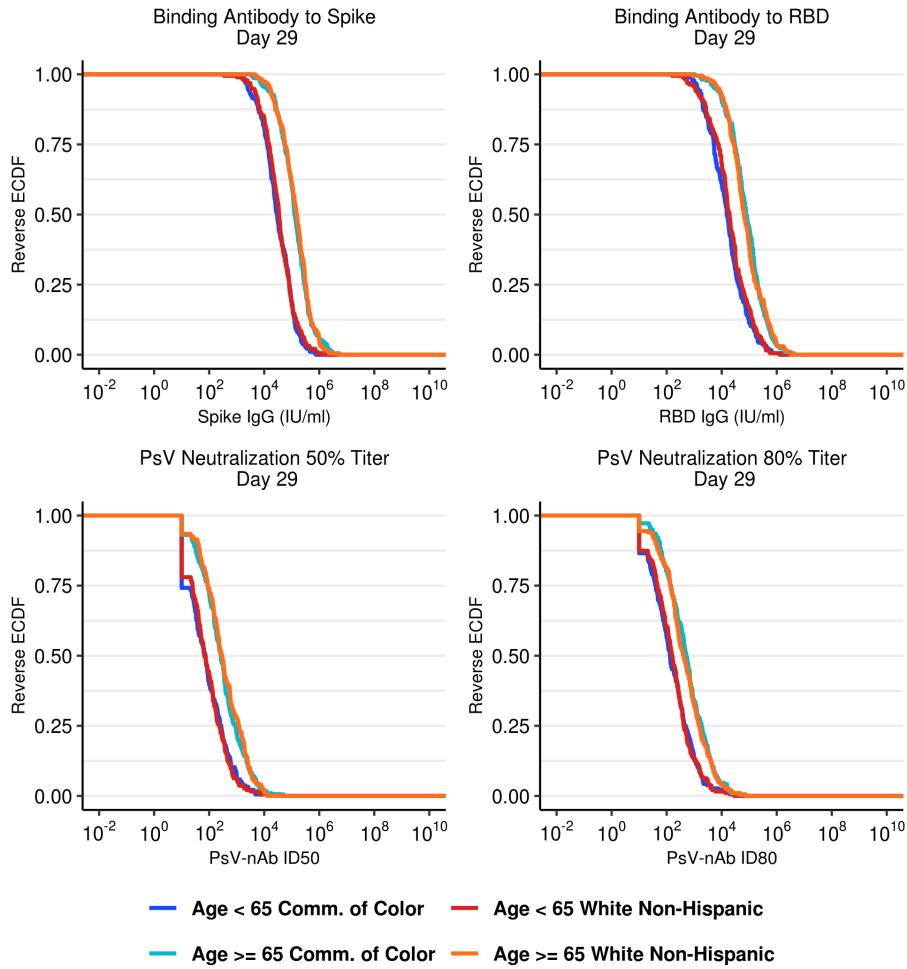


Figure 1.78: (Mock data) RCDF plots for D29 Ab markers: baseline negative vaccine arm by age and dichotomous classification of race and ethnic group.

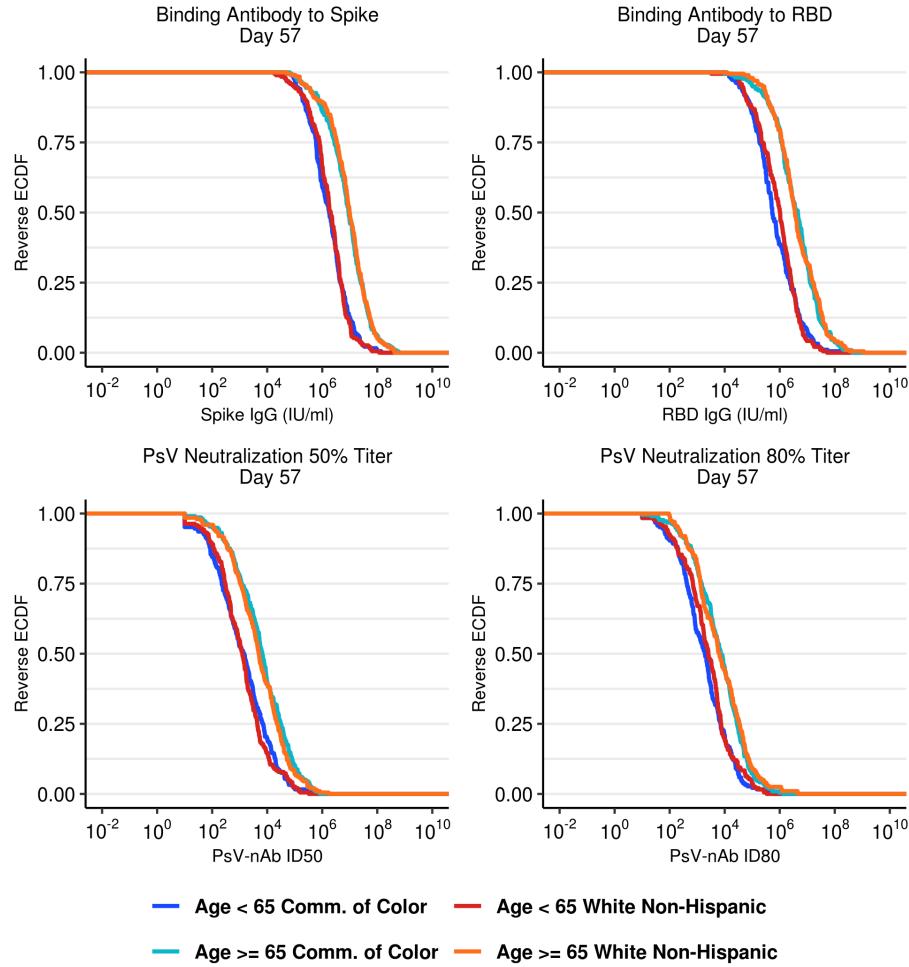


Figure 1.79: (Mock data) RCDF plots for D57 Ab markers: baseline negative vaccine arm by age and dichotomous classification of race and ethnic group.

## 1.6. BOXPLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT93

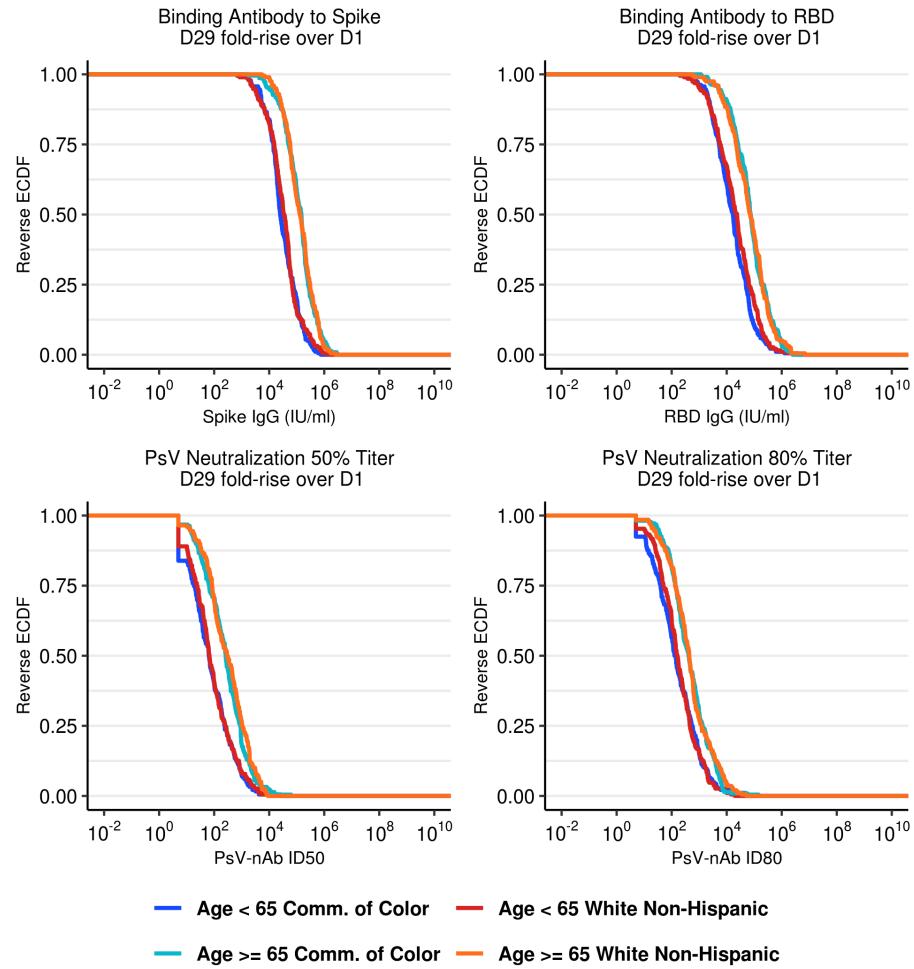


Figure 1.80: (Mock data) RCDF plots for D29 fold-rise over D1 Ab markers: baseline negative vaccine arm by age and dichotomous classification of race and ethnic group.

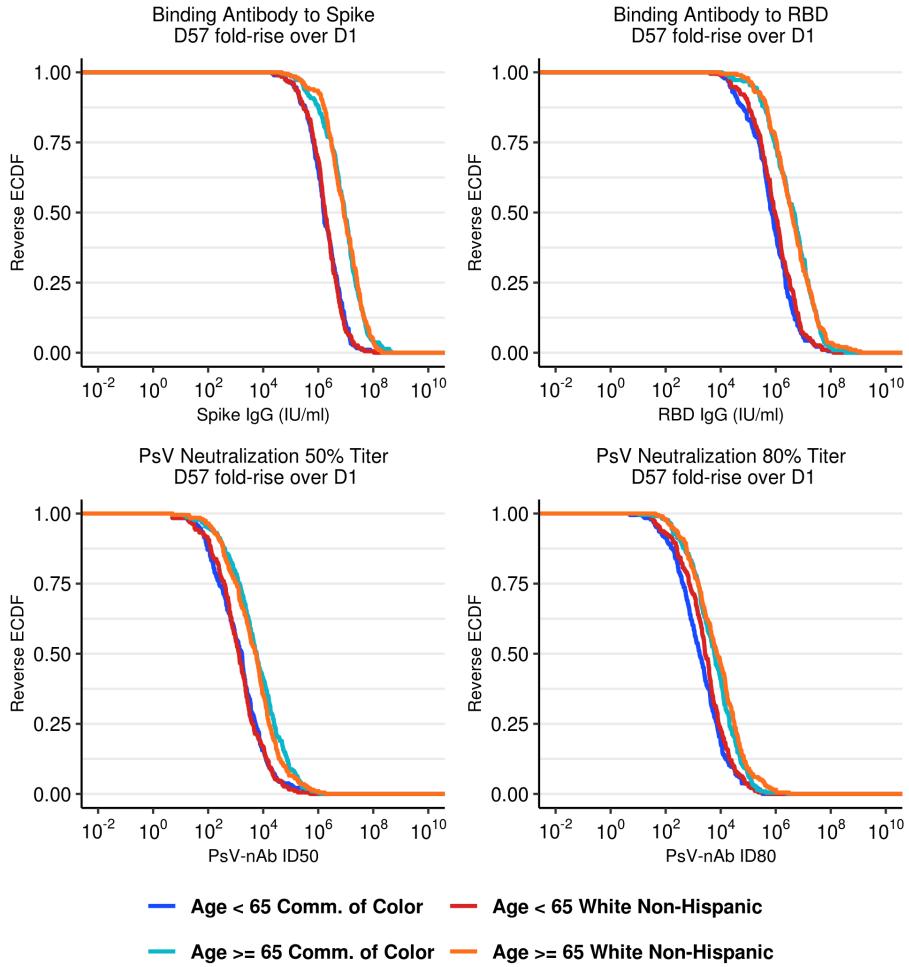


Figure 1.81: (Mock data) RCDF plots for D57 fold-rise over D1 Ab markers: baseline negative vaccine arm by age and dichotomous classification of race and ethnic group.

1.6. BOXPLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT95

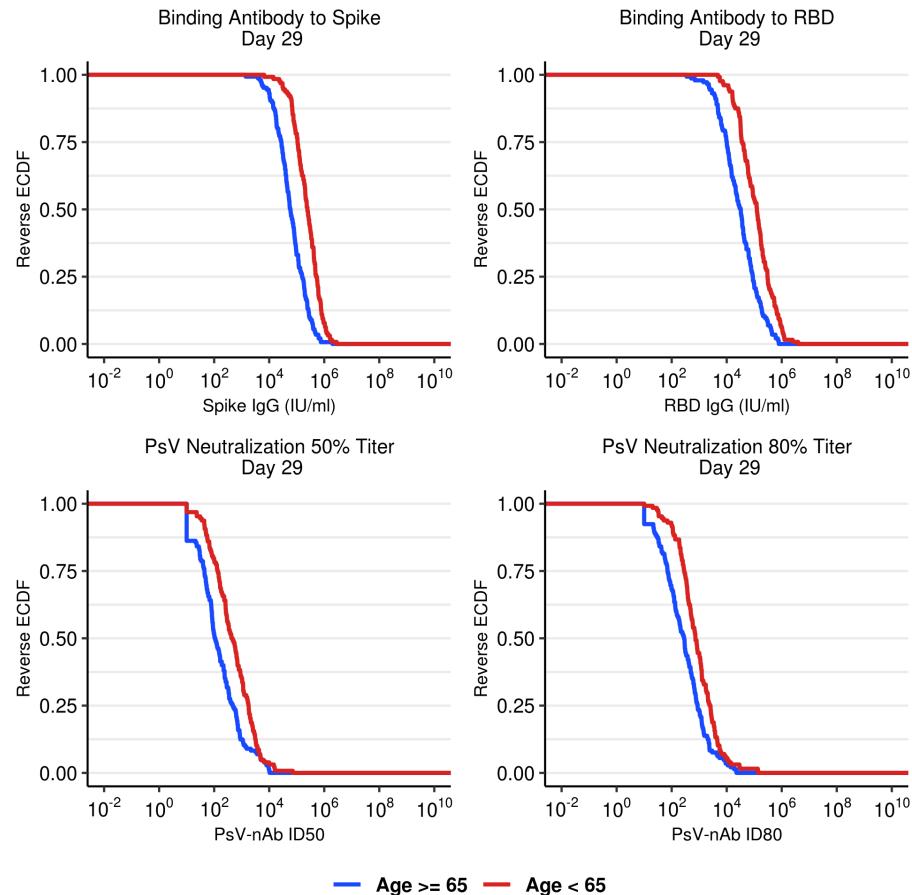


Figure 1.82: (Mock data) RCDF plots for D29 Ab markers: baseline positive vaccine arm by age groups.

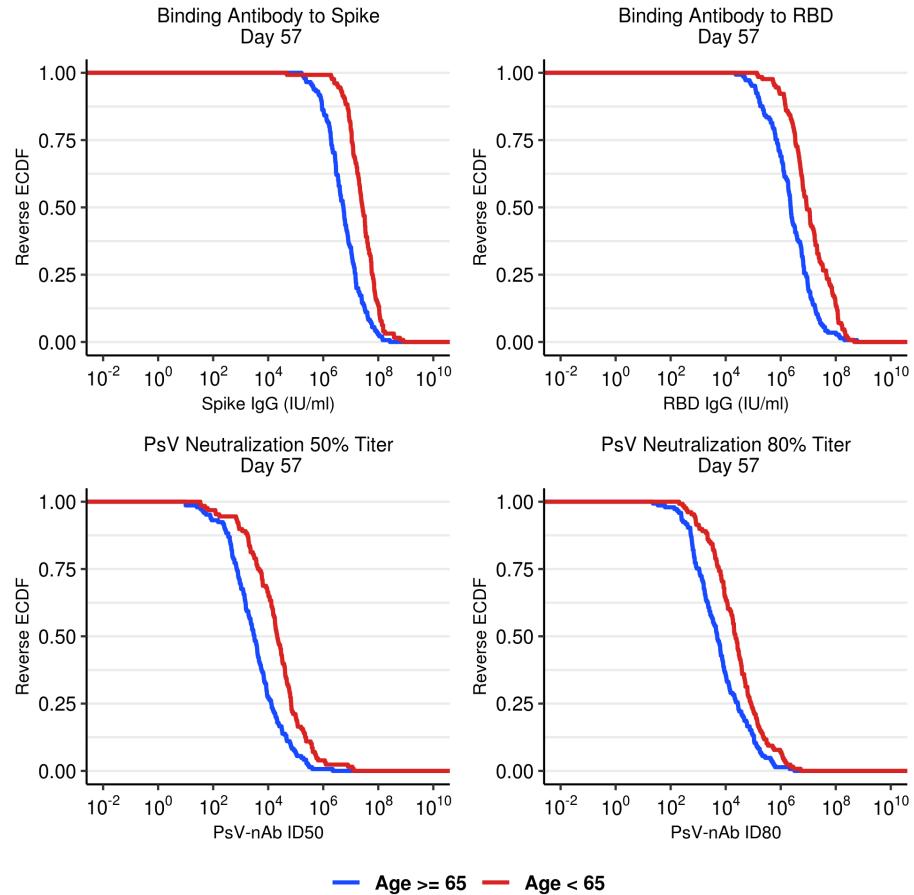


Figure 1.83: (Mock data) RCDF plots for D57 Ab markers: baseline positive vaccine arm by age groups.

1.6. BOXPLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT97

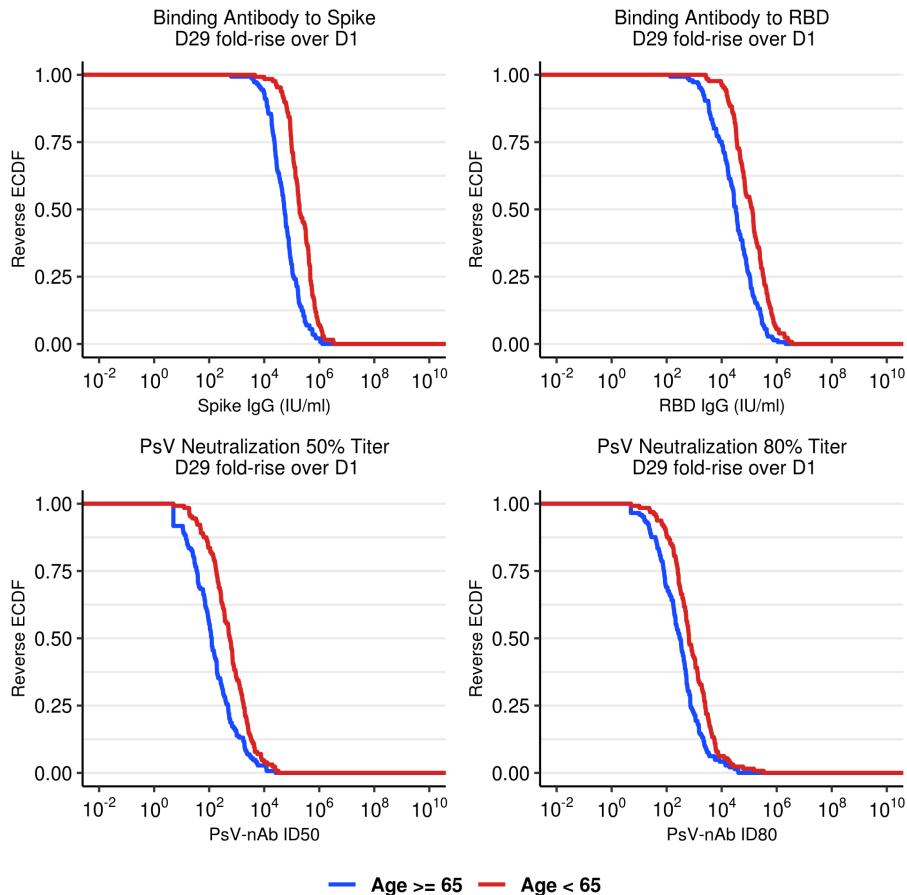


Figure 1.84: (Mock data) RCDF plots for D29 fold-rise over D1 Ab markers: baseline positive vaccine arm by age groups.

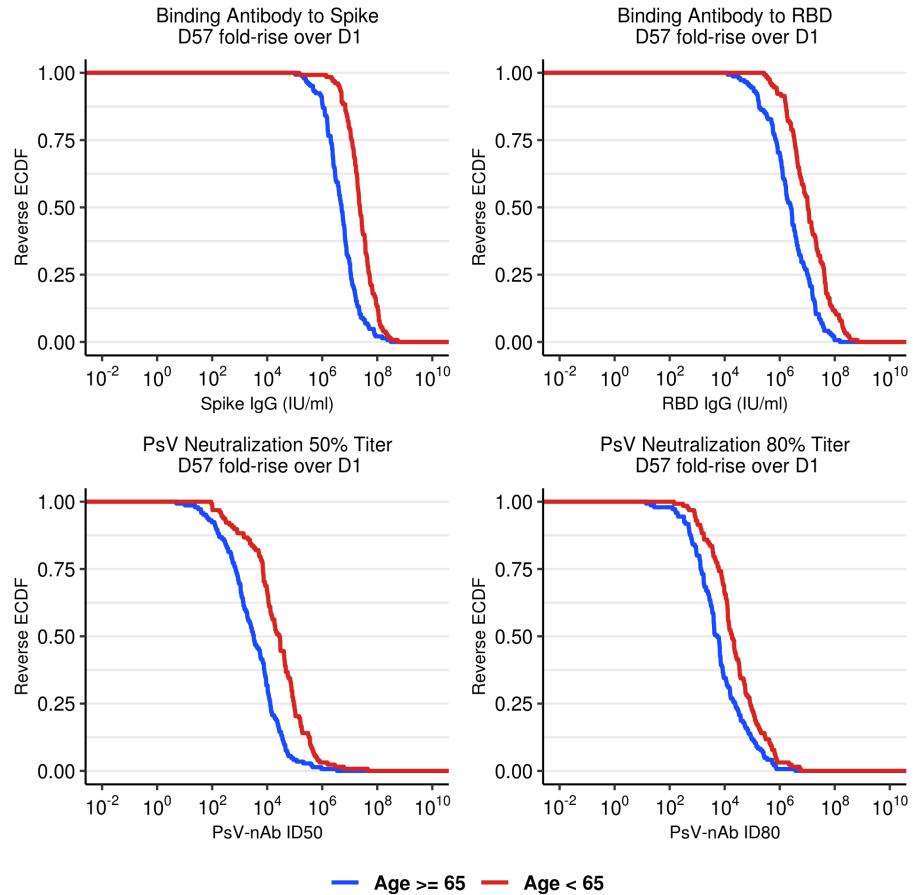


Figure 1.85: (Mock data) RCDF plots for D57 fold-rise over D1 Ab markers: baseline positive vaccine arm by age groups.

## 1.6. BOXPLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT99

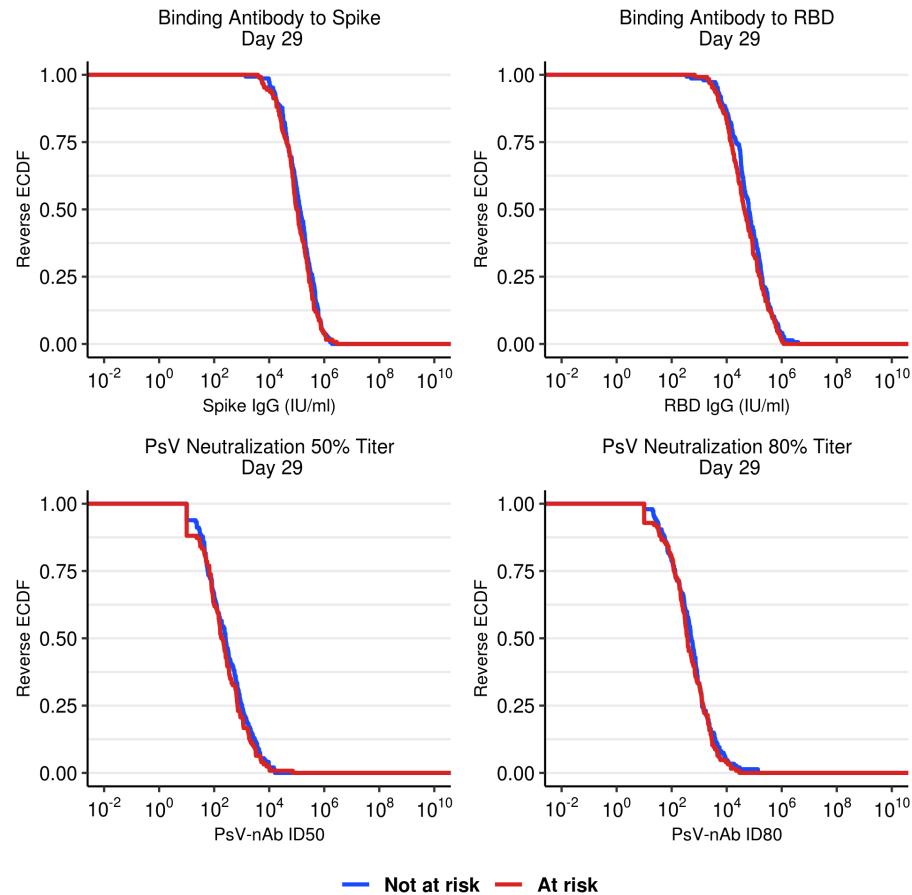


Figure 1.86: (Mock data) RCDF plots for D29 Ab markers: baseline positive vaccine arm by high-risk condition.

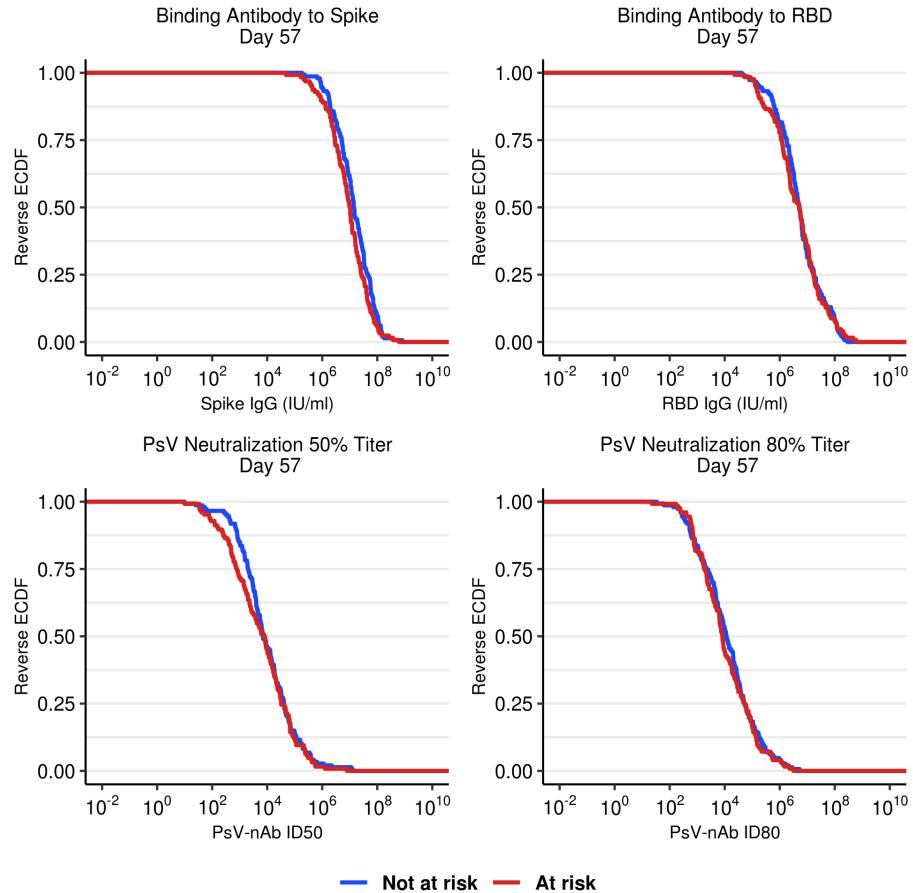


Figure 1.87: (Mock data) RCDF plots for D57 Ab markers: baseline positive vaccine arm by high-risk condition.

## 1.6. BOXPLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT101

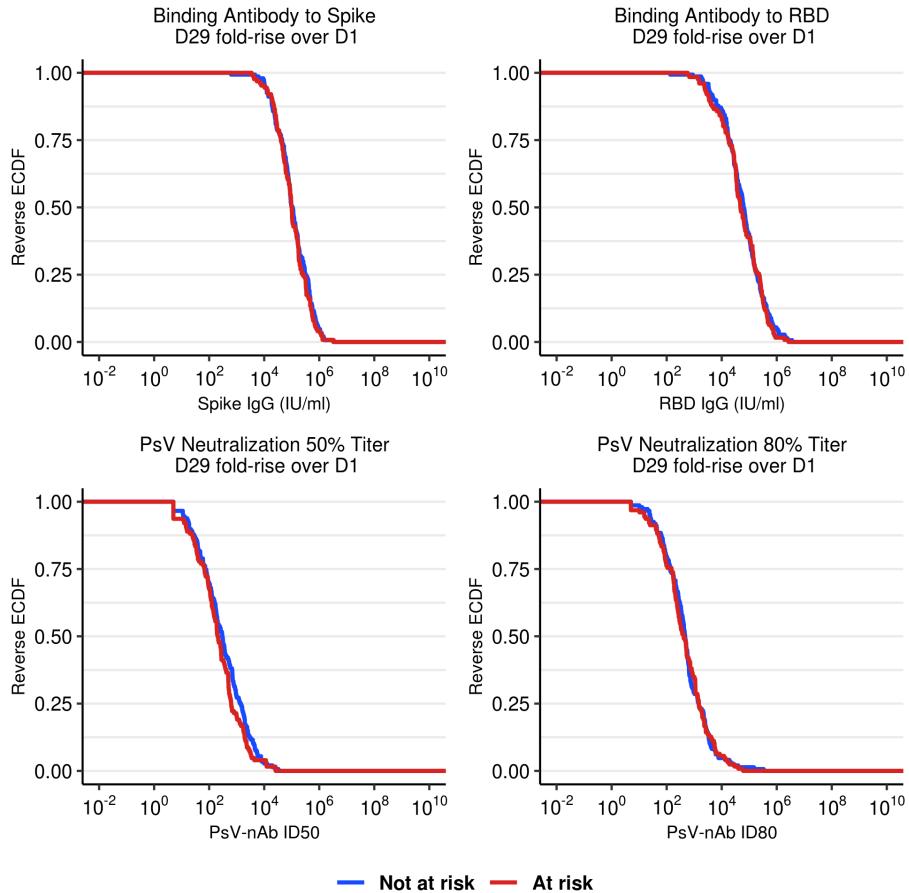


Figure 1.88: (Mock data) RCDF plots for D29 fold-rise over D1 Ab markers: baseline positive vaccine arm by high-risk condition.

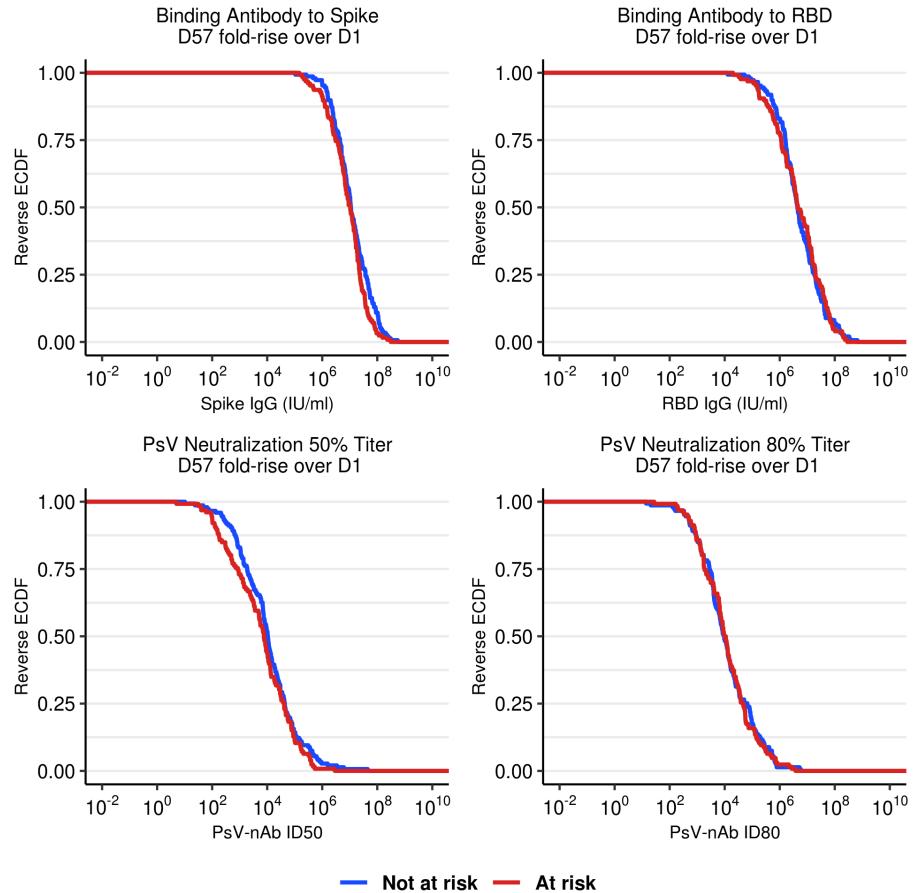


Figure 1.89: (Mock data) RCDF plots for D57 fold-rise over D1 Ab markers: baseline positive vaccine arm by high-risk condition.

## 1.6. BOXPLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT103

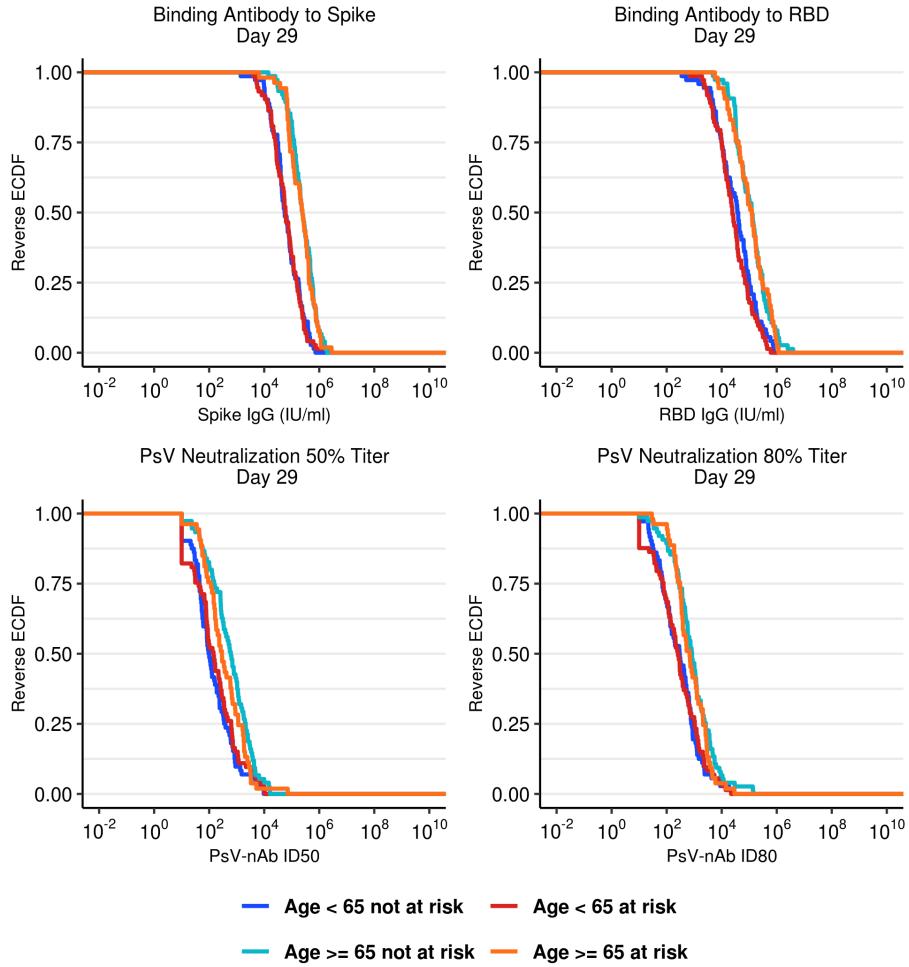


Figure 1.90: (Mock data) RCDF plots for D29 Ab markers: baseline positive vaccine arm by age and high-risk condition.

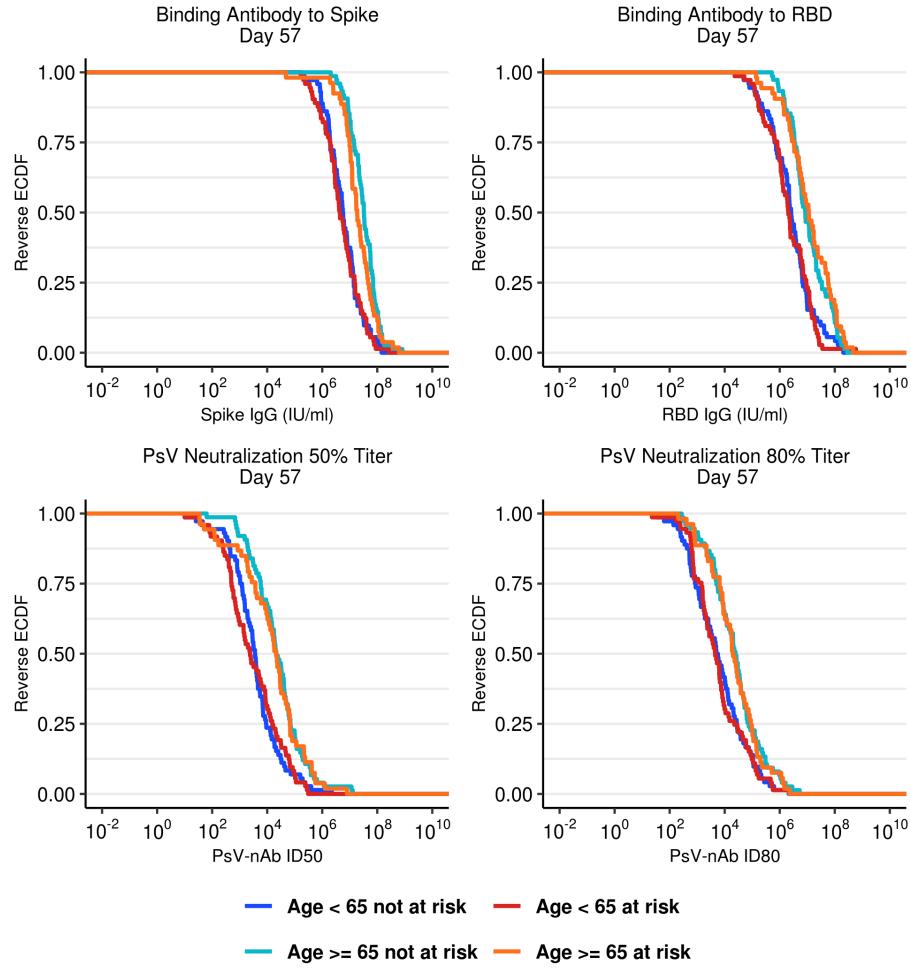


Figure 1.91: (Mock data) RCDF plots for D57 Ab markers: baseline positive vaccine arm by age and high-risk condition.

## 1.6. BOXPLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT105

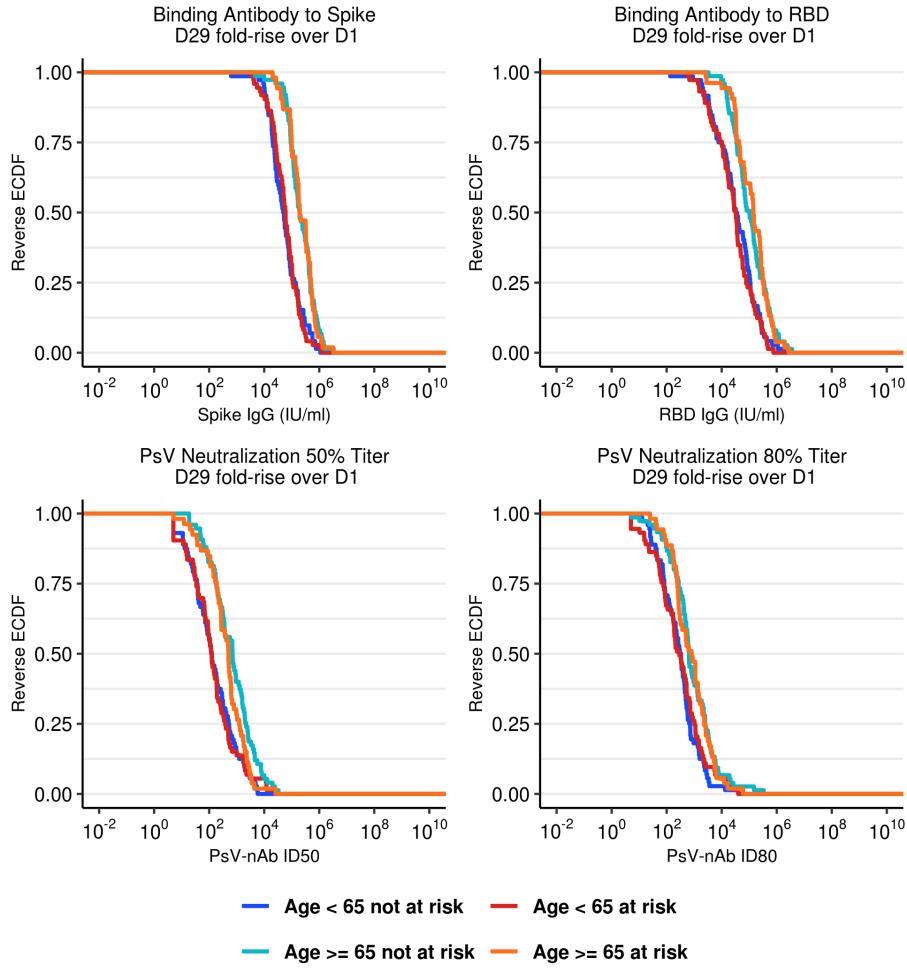


Figure 1.92: (Mock data) RCDF plots for D29 fold-rise over D1 Ab markers: baseline positive vaccine arm by age and high-risk condition.

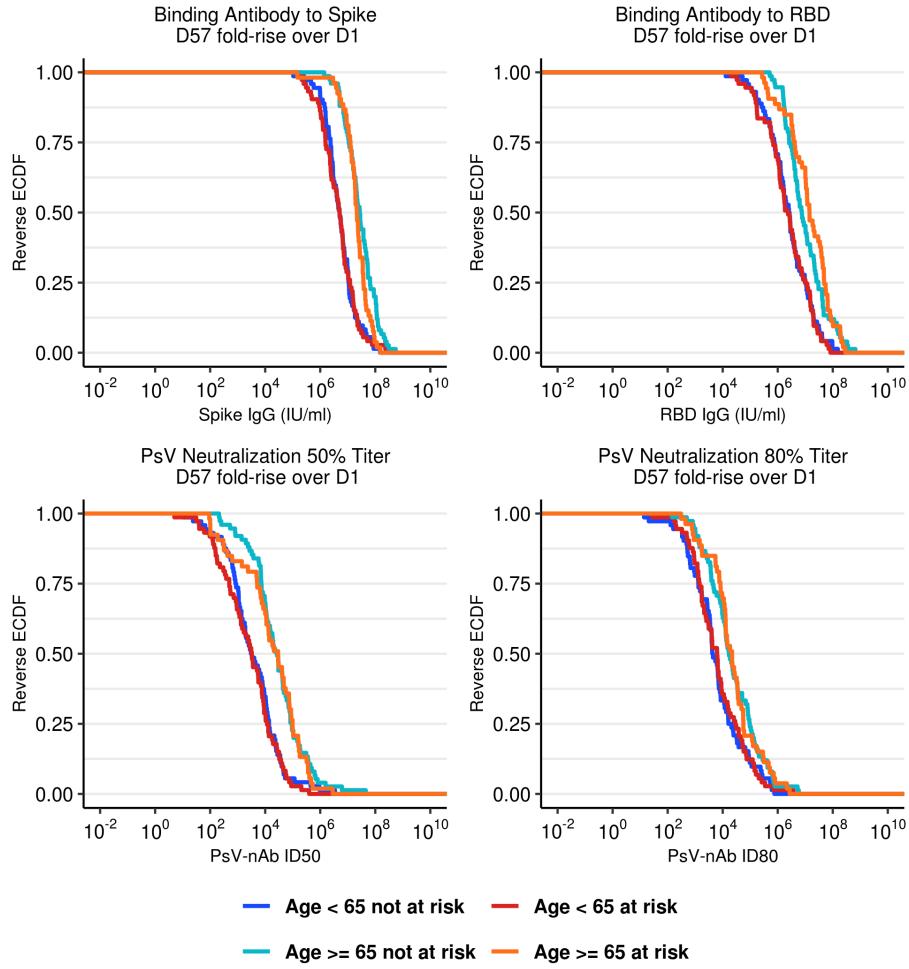


Figure 1.93: (Mock data) RCDF plots for D57 fold-rise over D1 Ab markers: baseline positive vaccine arm by age and high-risk condition.

## 1.6. BOXPLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT107

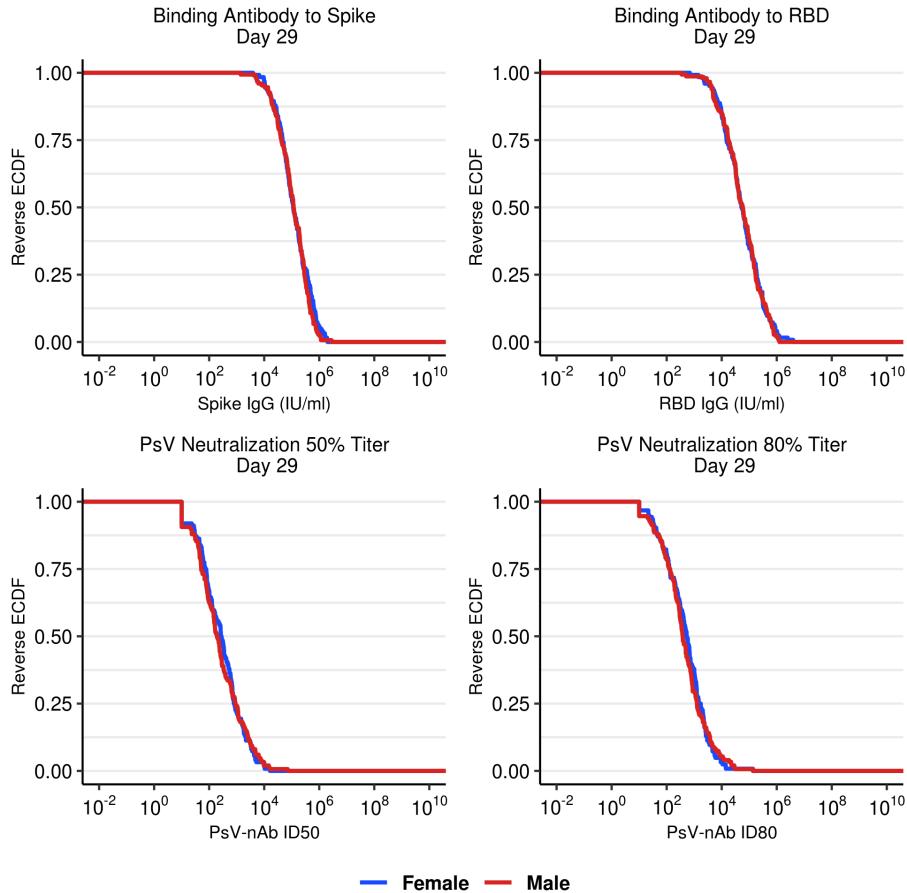


Figure 1.94: (Mock data) RCDF plots for D29 Ab markers: baseline positive vaccine arm by sex assigned at birth.

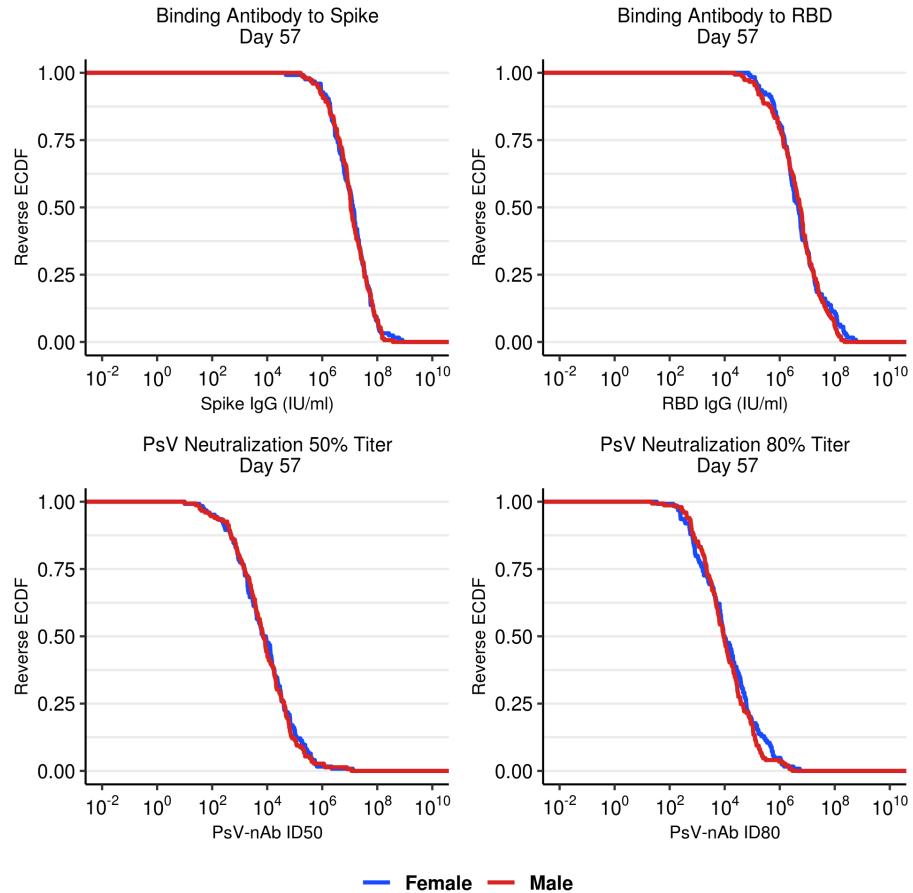


Figure 1.95: (Mock data) RCDF plots for D57 Ab markers: baseline positive vaccine arm by sex assigned at birth.

1.6. BOXPLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT109

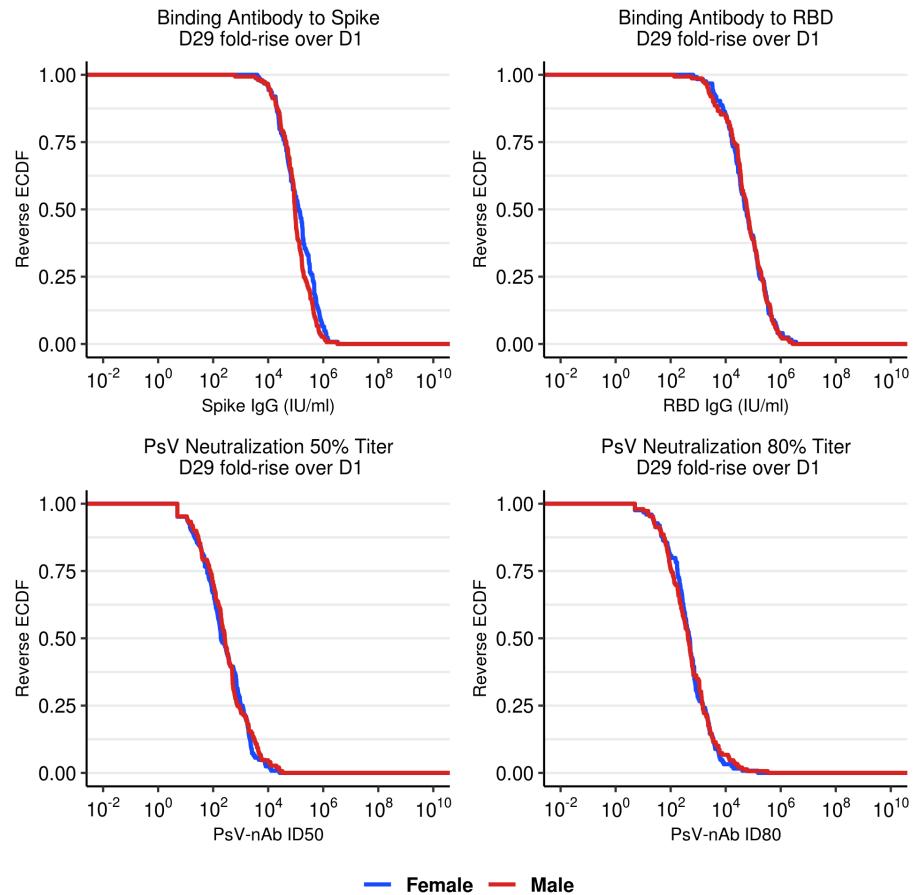


Figure 1.96: (Mock data) RCDF plots for D29 fold-rise over D1 Ab markers: baseline positive vaccine arm by sex assigned at birth.

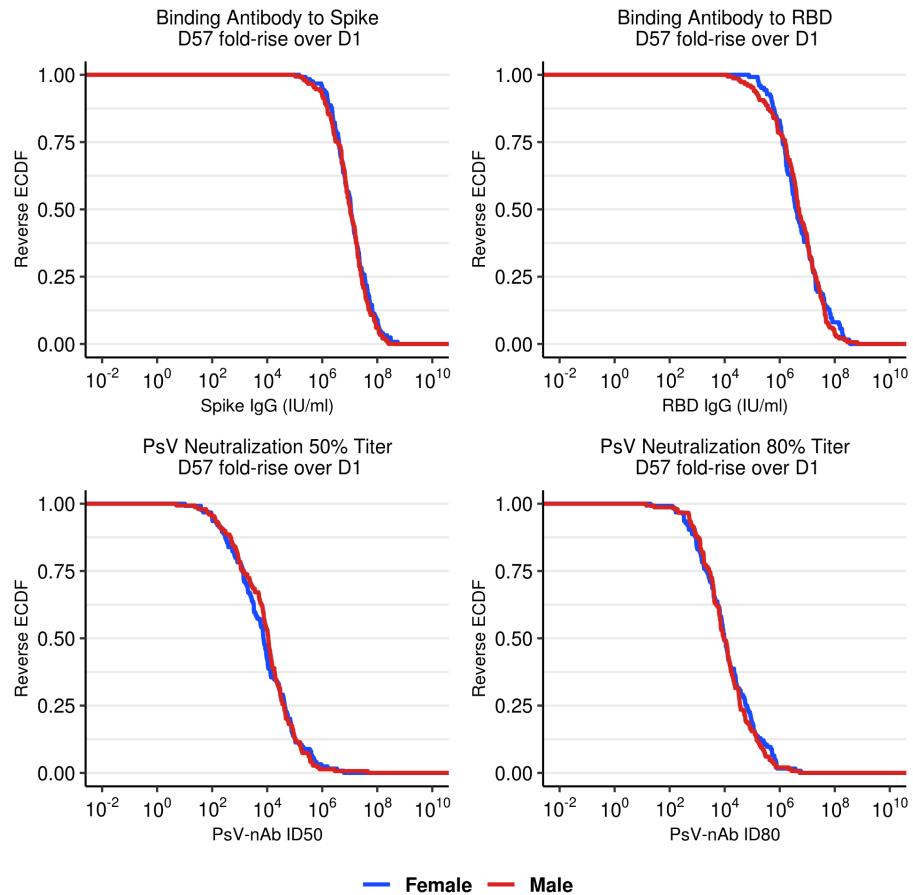


Figure 1.97: (Mock data) RCDF plots for D57 fold-rise over D1 Ab markers: baseline positive vaccine arm by sex assigned at birth.

## 1.6. BOXPLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT111

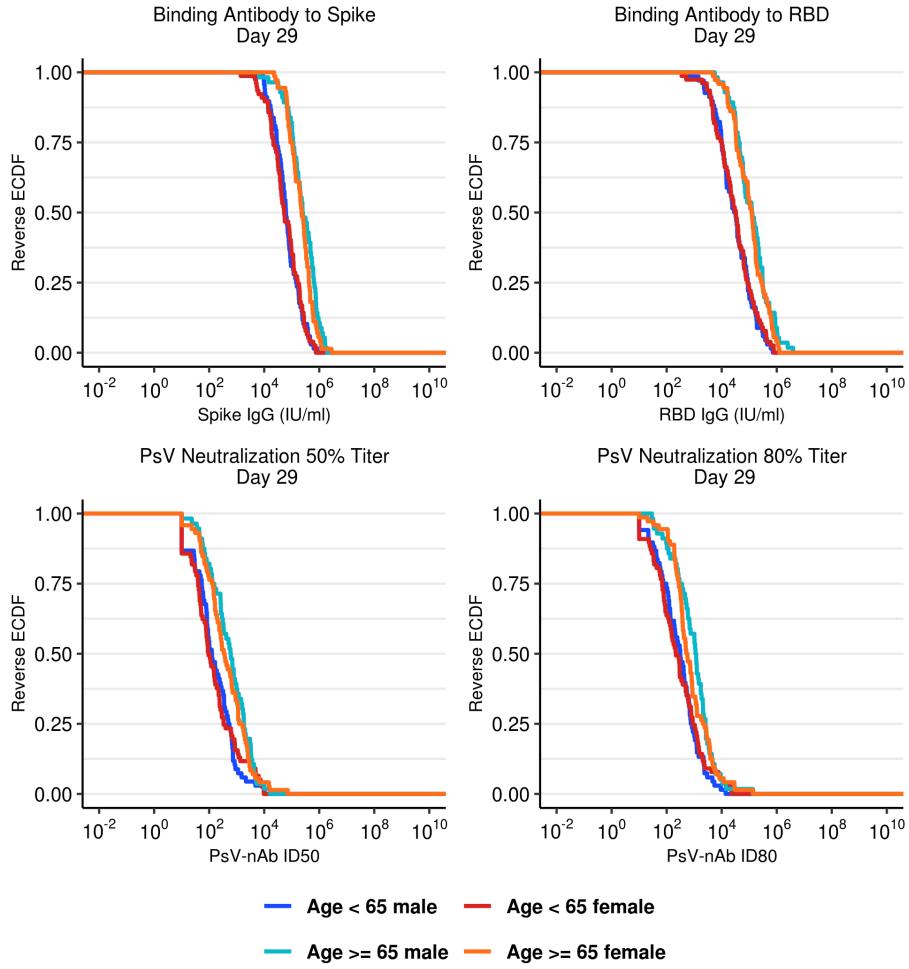


Figure 1.98: (Mock data) RCDF plots for D29 Ab markers: baseline positive vaccine arm by age and sex assigned at birth.

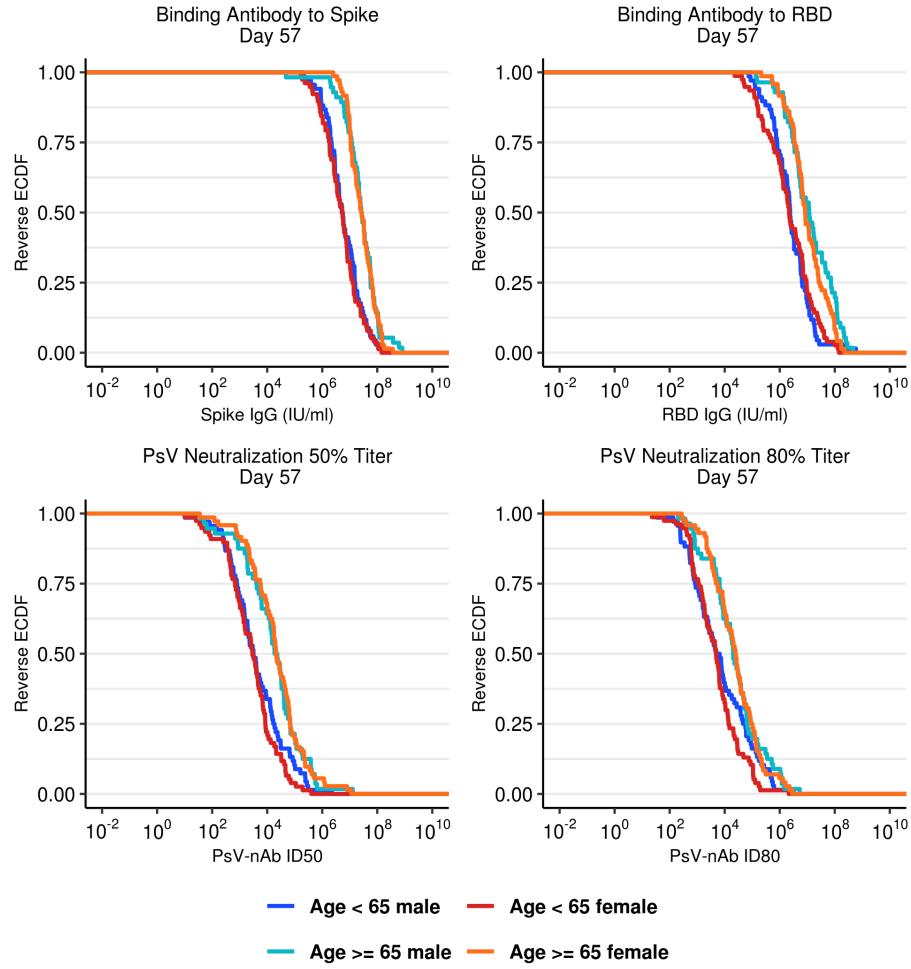


Figure 1.99: (Mock data) RCDF plots for D57 Ab markers: baseline positive vaccine arm by age and sex assigned at birth.

1.6. BOXPLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT113

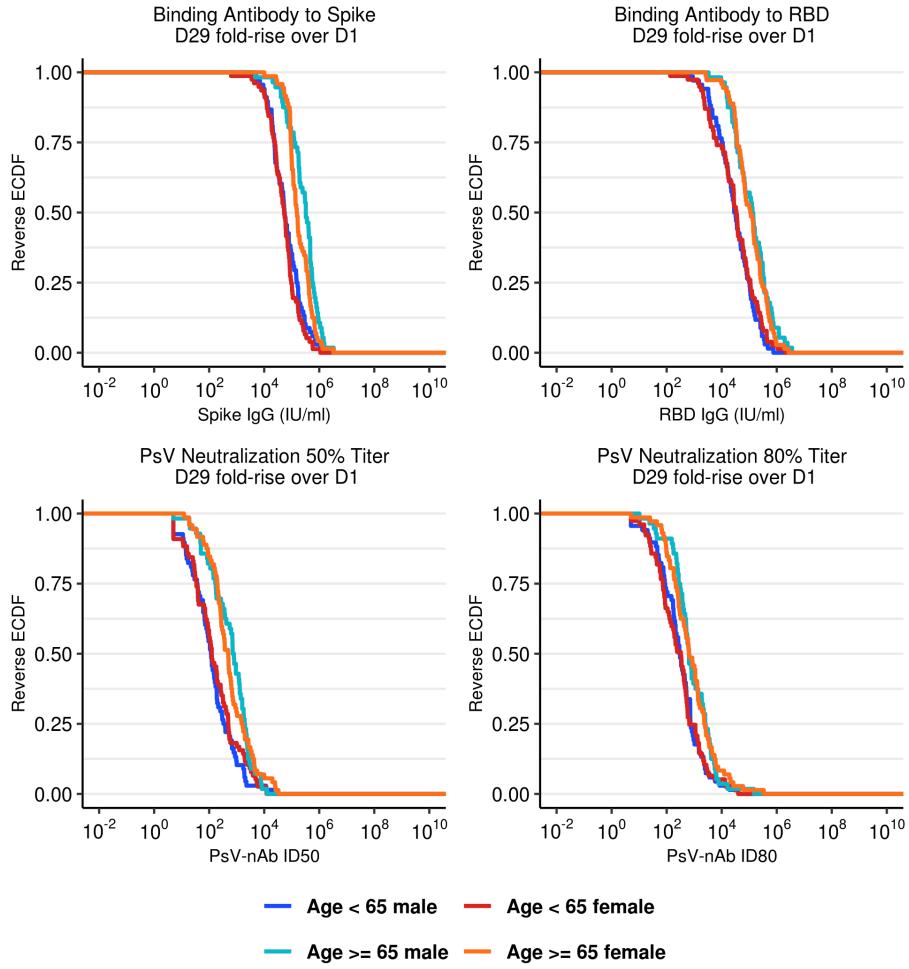


Figure 1.100: (Mock data) RCDF plots for D29 fold-rise over D1 Ab markers: baseline positive vaccine arm by age and sex assigned at birth.

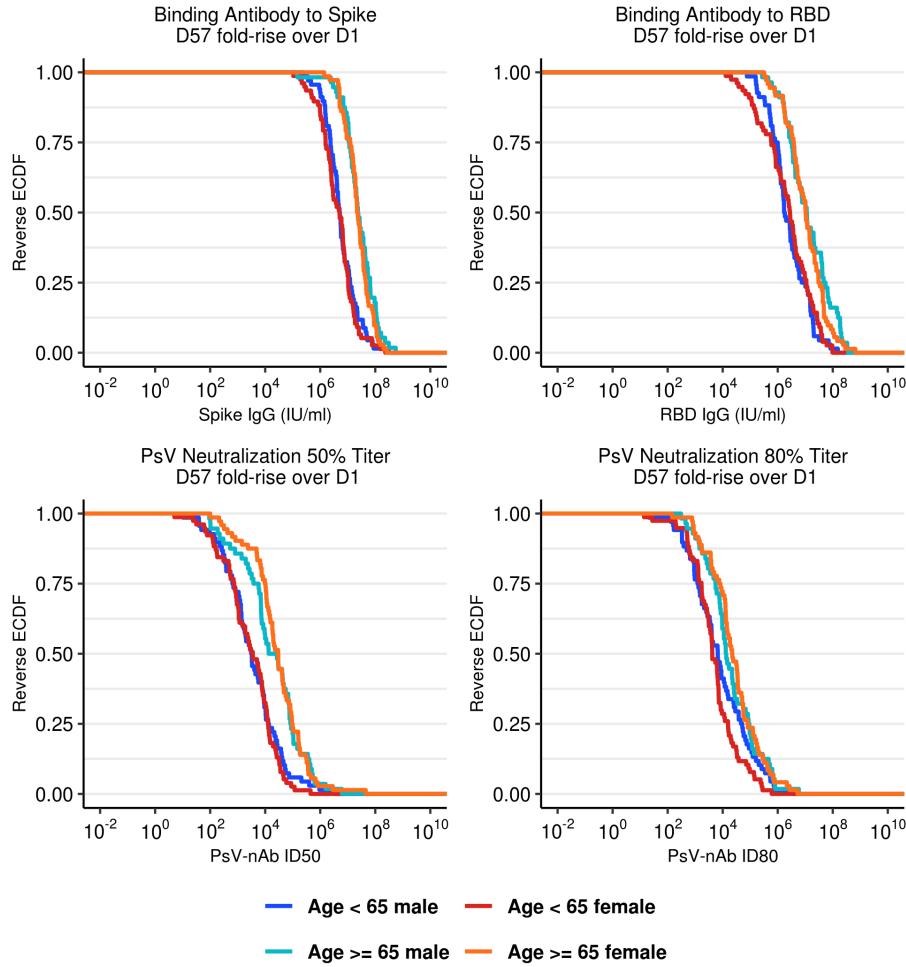


Figure 1.101: (Mock data) RCDF plots for D57 fold-rise over D1 Ab markers: baseline positive vaccine arm by age and sex assigned at birth.

## 1.6. BOXPLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT115

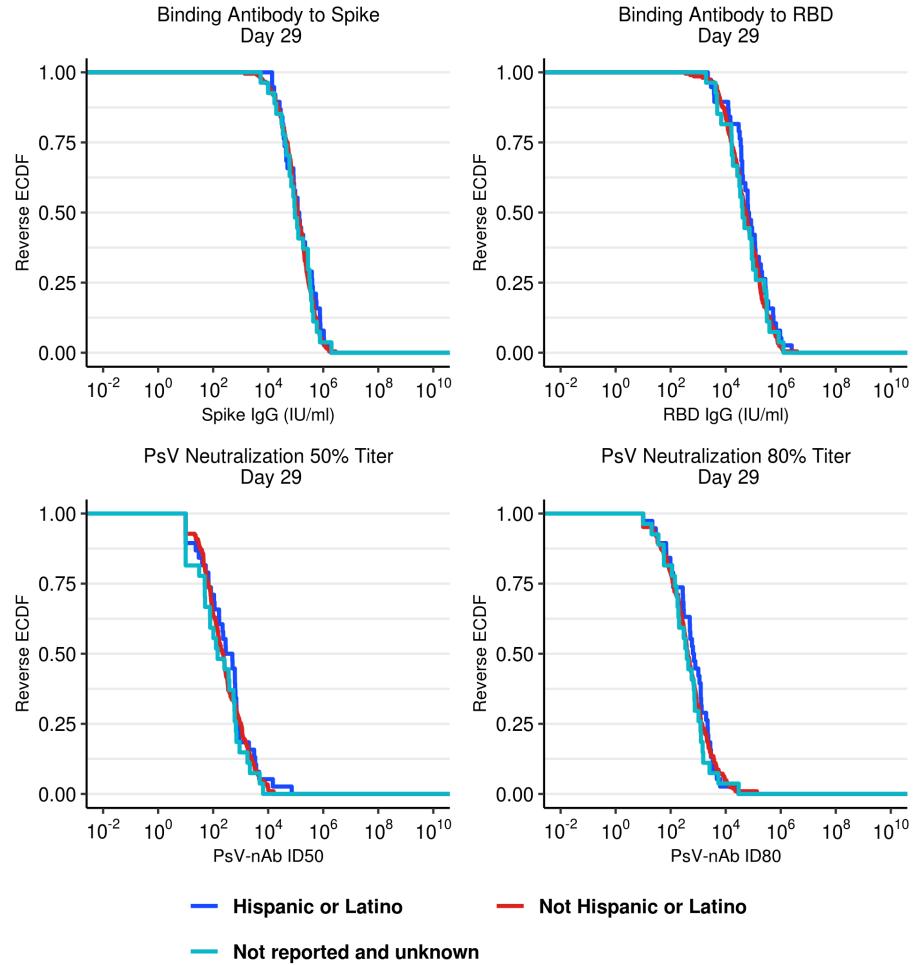


Figure 1.102: (Mock data) RCDF plots for D29 Ab markers: baseline positive vaccine arm by ethnicity.

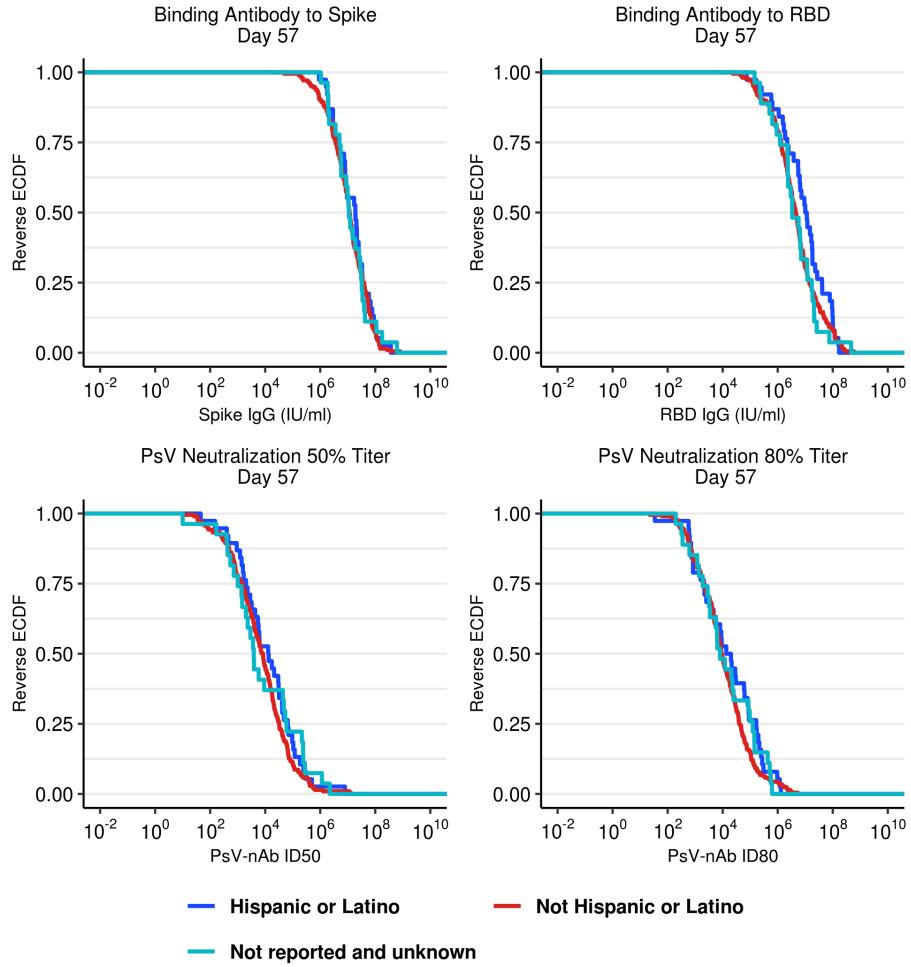


Figure 1.103: (Mock data) RCDF plots for D57 Ab markers: baseline positive vaccine arm by ethnicity.

## 1.6. BOXPLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT117

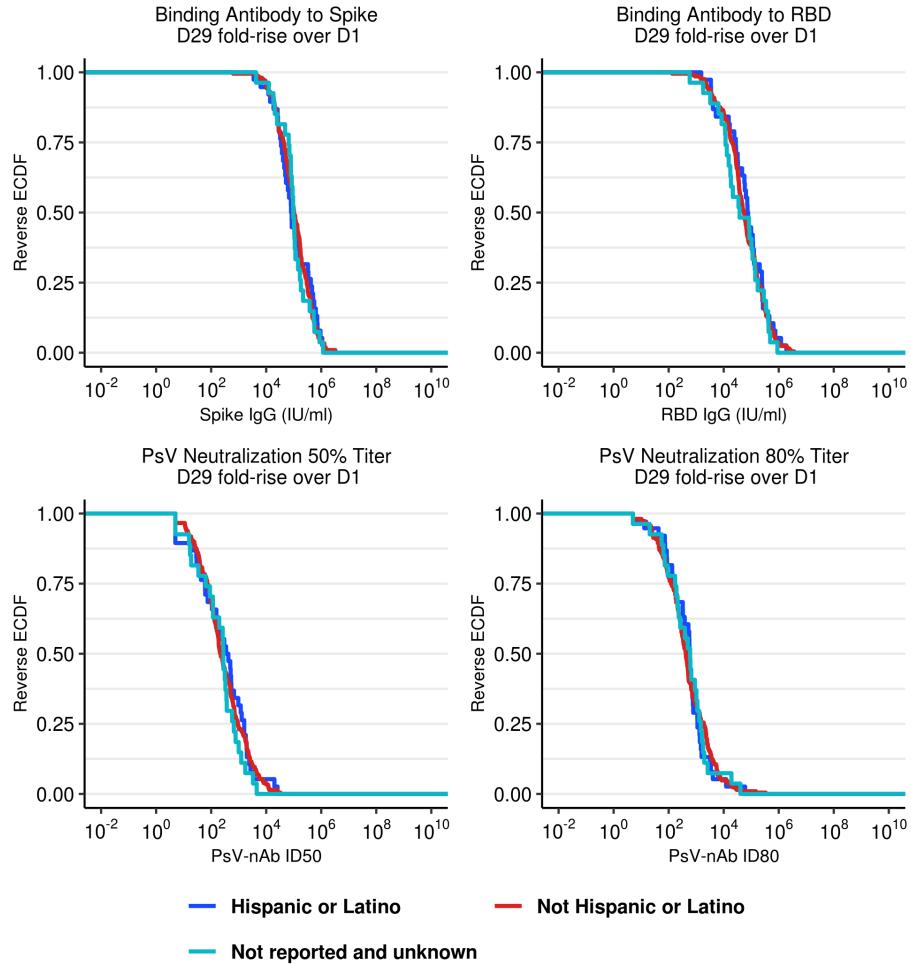


Figure 1.104: (Mock data) RCDF plots for D29 fold-rise over D1 Ab markers: baseline positive vaccine arm by ethnicity.

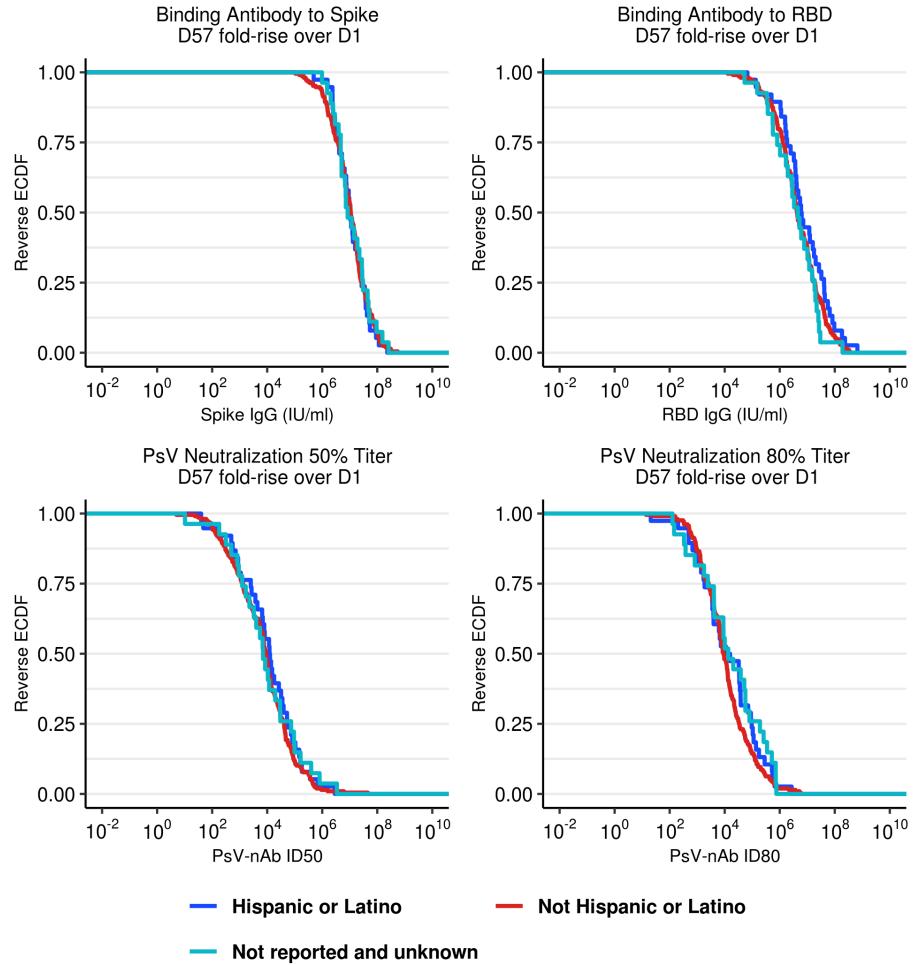


Figure 1.105: (Mock data) RCDF plots for D57 fold-rise over D1 Ab markers: baseline positive vaccine arm by ethnicity.

1.6. BOXPLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT119

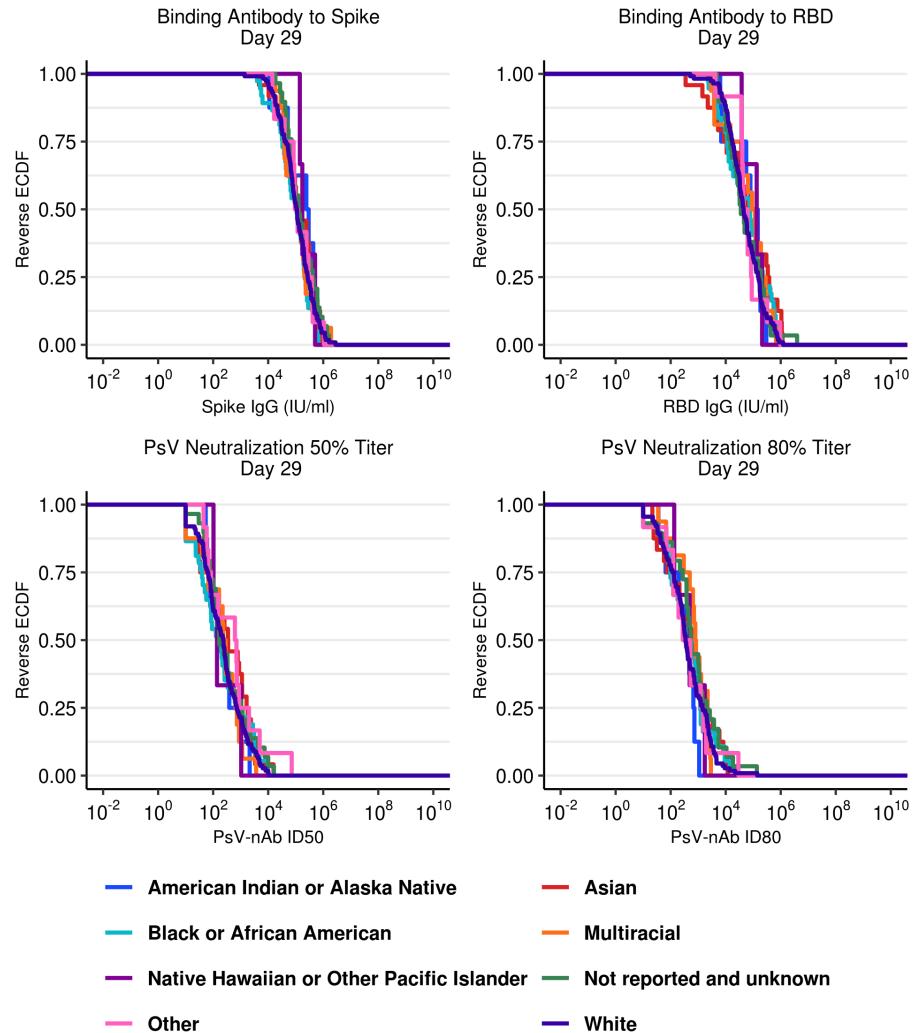


Figure 1.106: (Mock data) RCDF plots for D29 Ab markers: baseline positive vaccine arm by race.

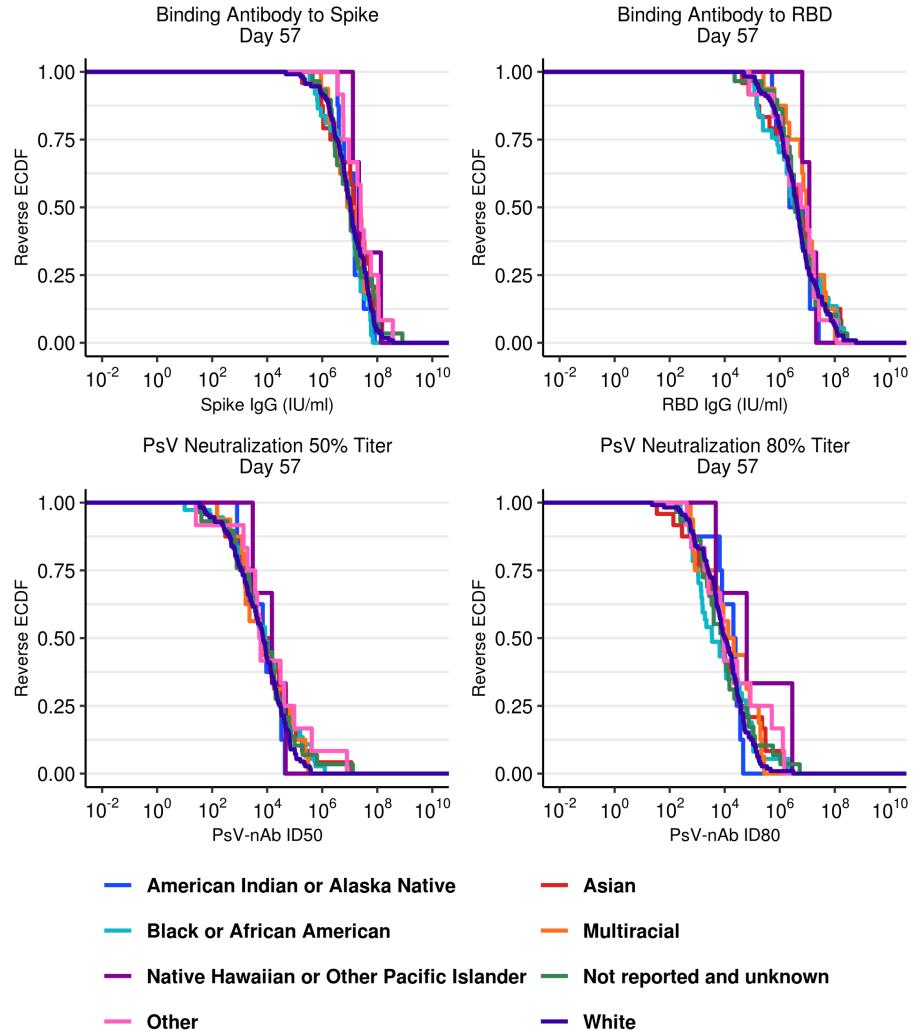


Figure 1.107: (Mock data) RCDF plots for D57 Ab markers: baseline positive vaccine arm by race.

1.6. BOXPLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT121

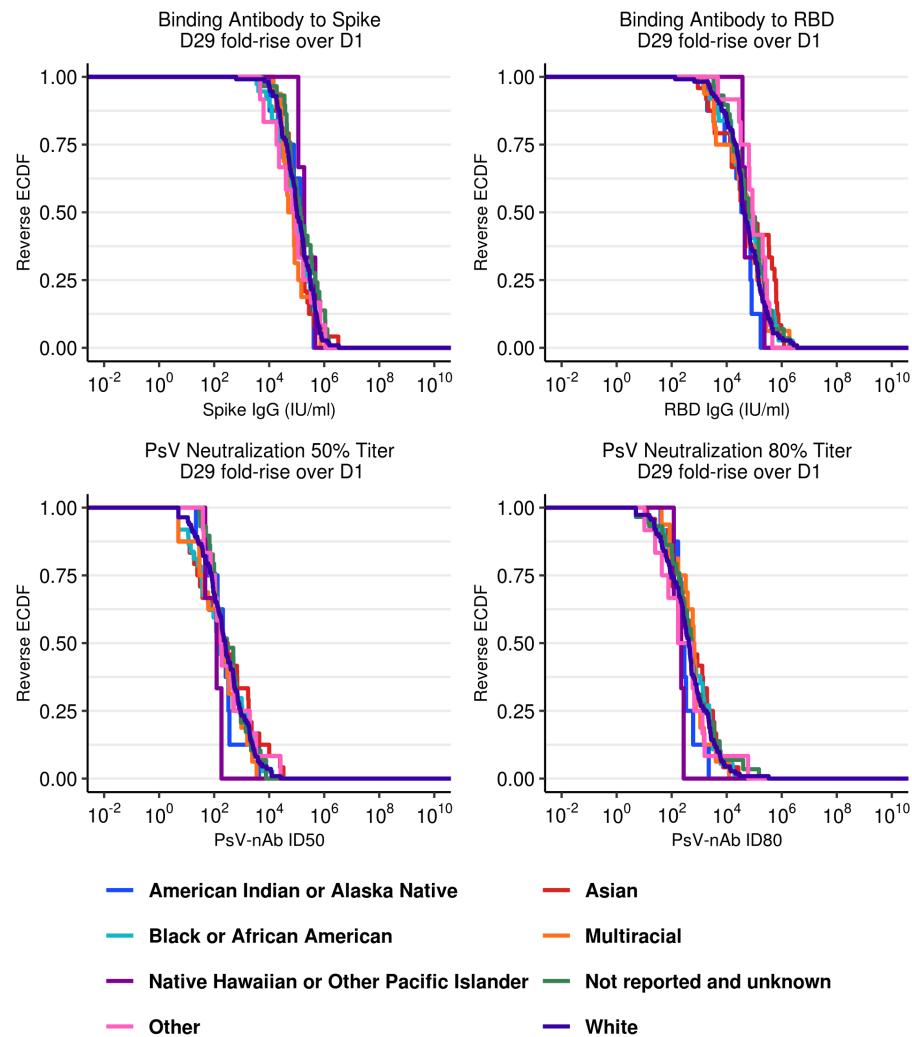


Figure 1.108: (Mock data) RCDF plots for D29 fold-rise over D1 Ab markers: baseline positive vaccine arm by race.

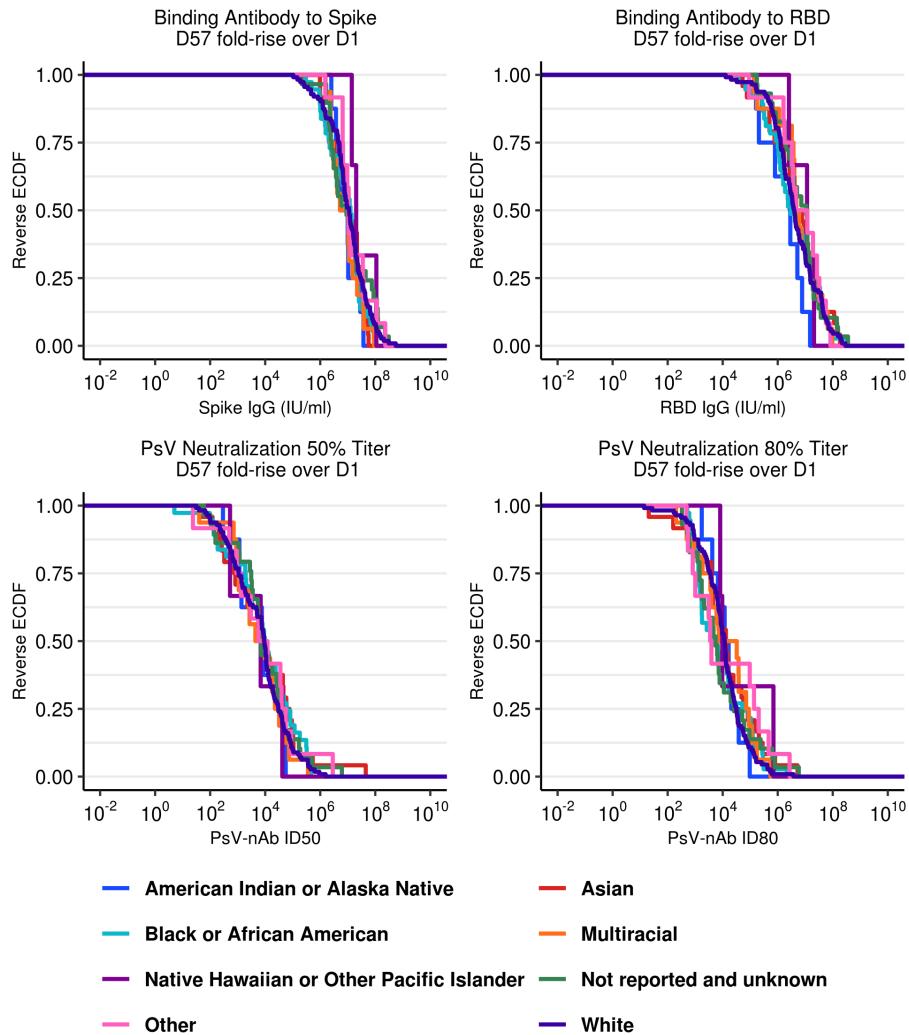


Figure 1.109: (Mock data) RCDF plots for D57 fold-rise over D1 Ab markers: baseline positive vaccine arm by race.

1.6. BOXPLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT123

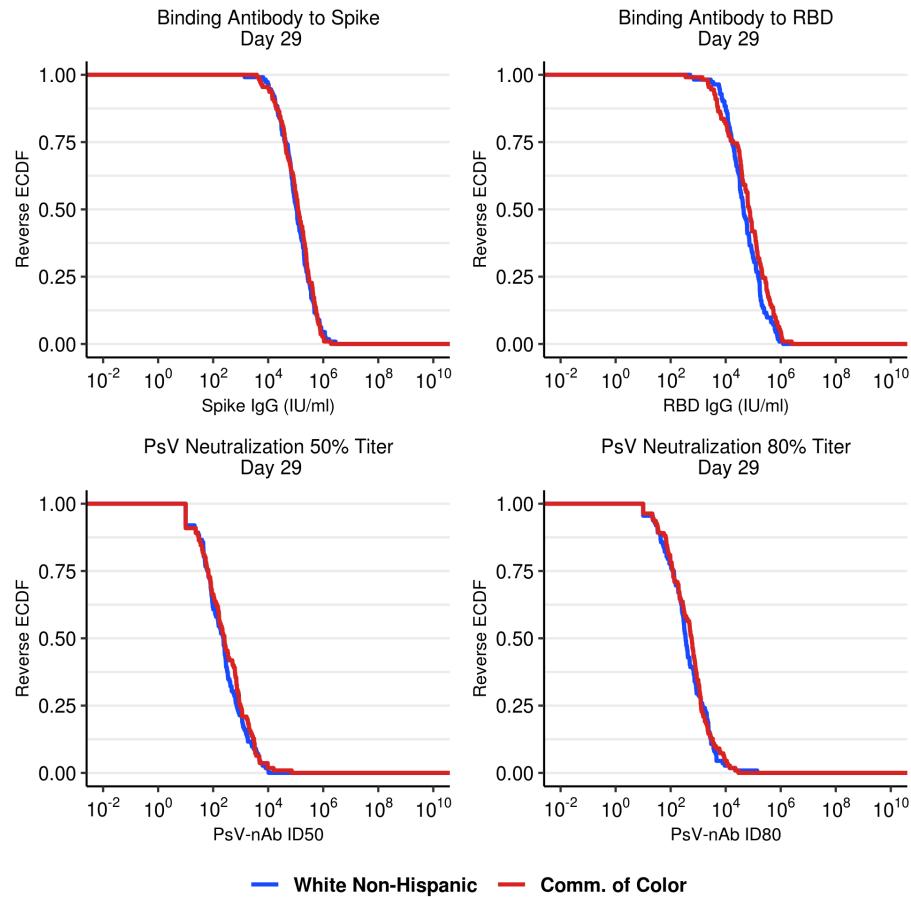


Figure 1.110: (Mock data) RCDF plots for D29 Ab markers: baseline positive vaccine arm by dichotomous classification of race and ethnic group.

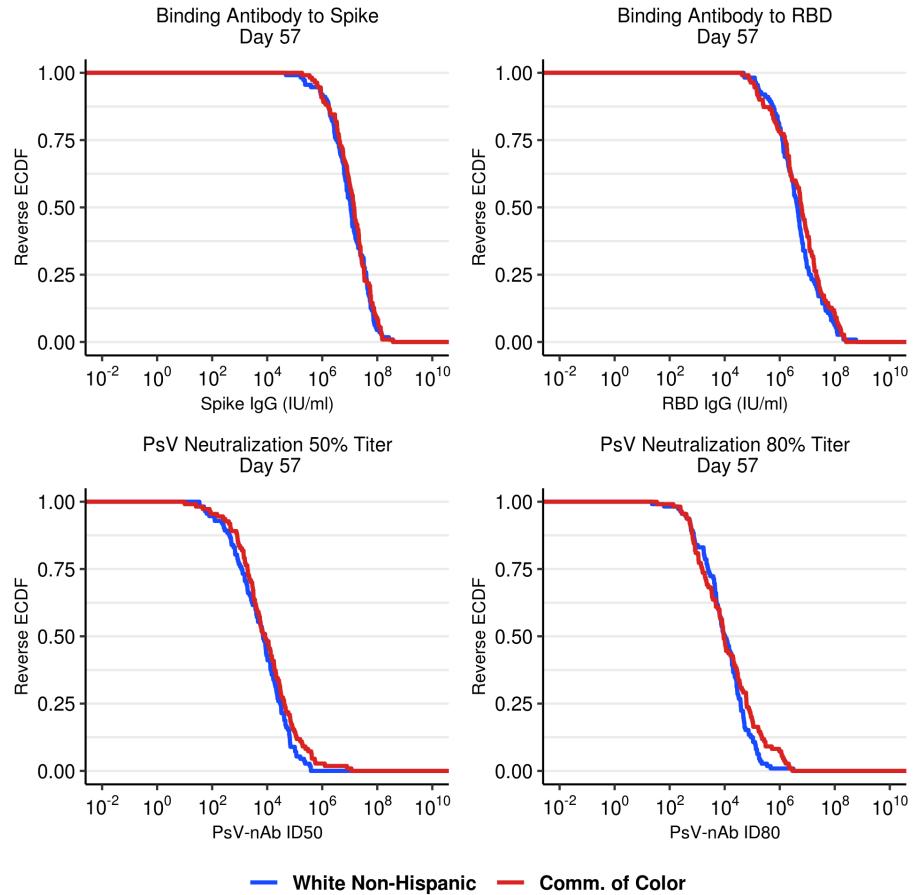


Figure 1.111: (Mock data) RCDF plots for D57 Ab markers: baseline positive vaccine arm by dichotomous classification of race and ethnic group.

1.6. BOXPLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT125

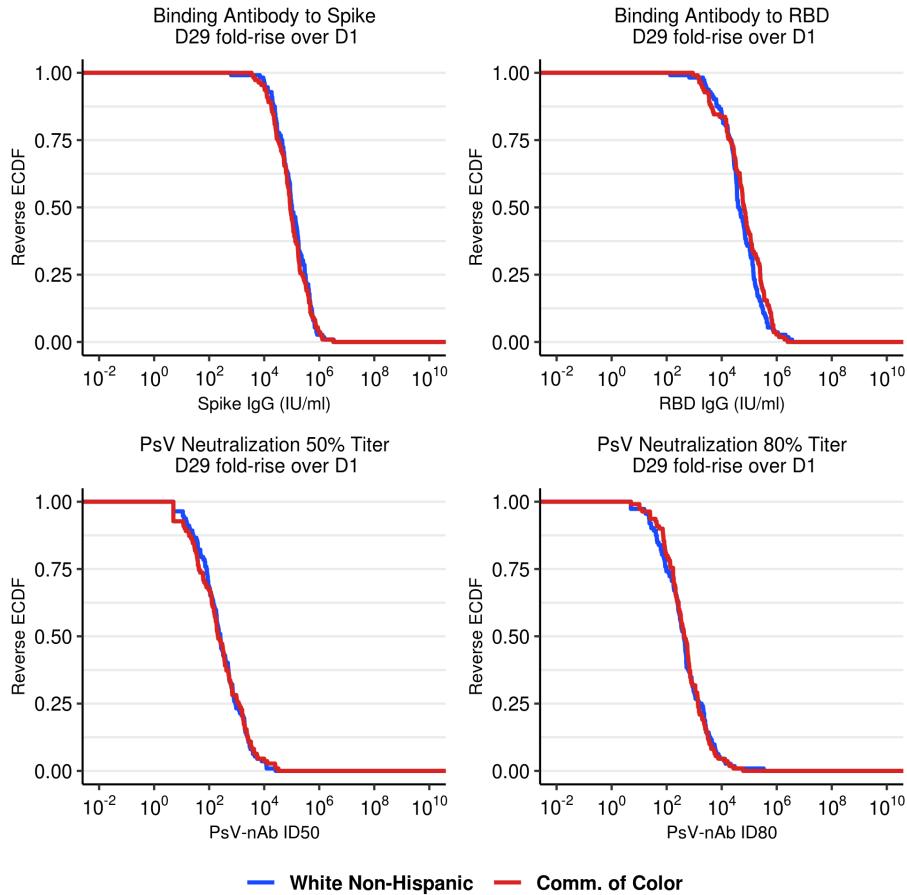


Figure 1.112: (Mock data) RCDF plots for D29 fold-rise over D1 Ab markers: baseline positive vaccine arm by dichotomous classification of race and ethnic group.

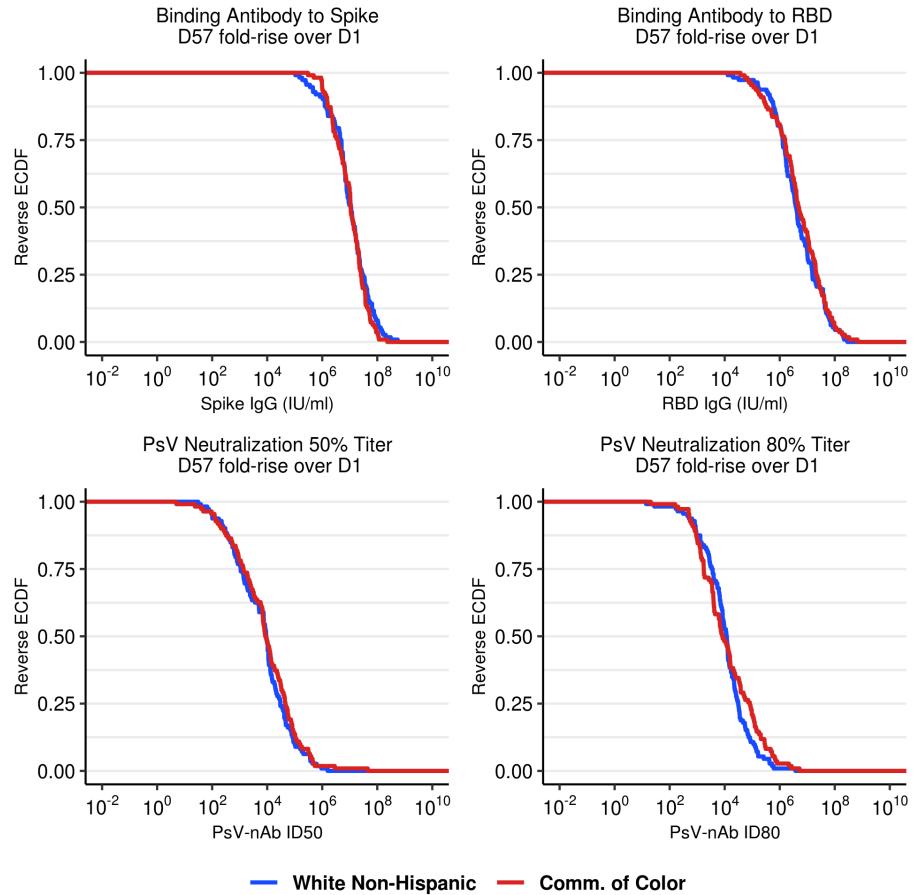


Figure 1.113: (Mock data) RCDF plots for D57 fold-rise over D1 Ab markers: baseline positive vaccine arm by dichotomous classification of race and ethnic group.

## 1.6. BOXPLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT127

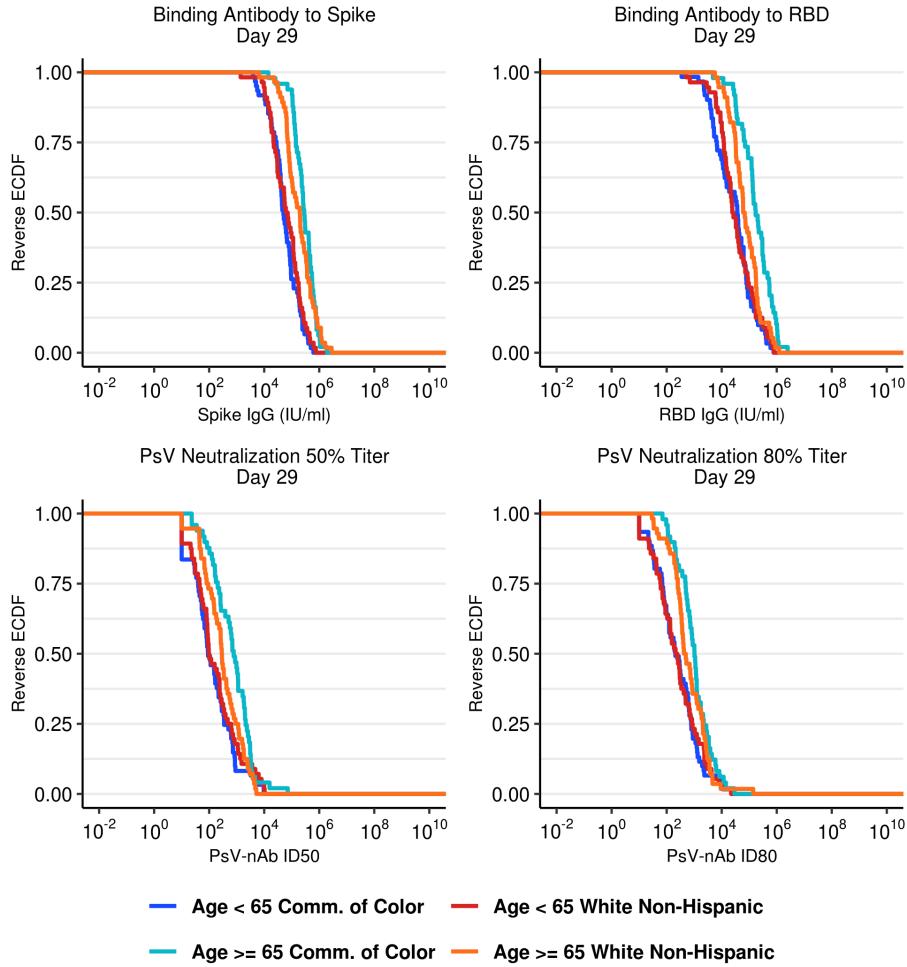


Figure 1.114: (Mock data) RCDF plots for D29 Ab markers: baseline positive vaccine arm by age and dichotomous classification of race and ethnic group.

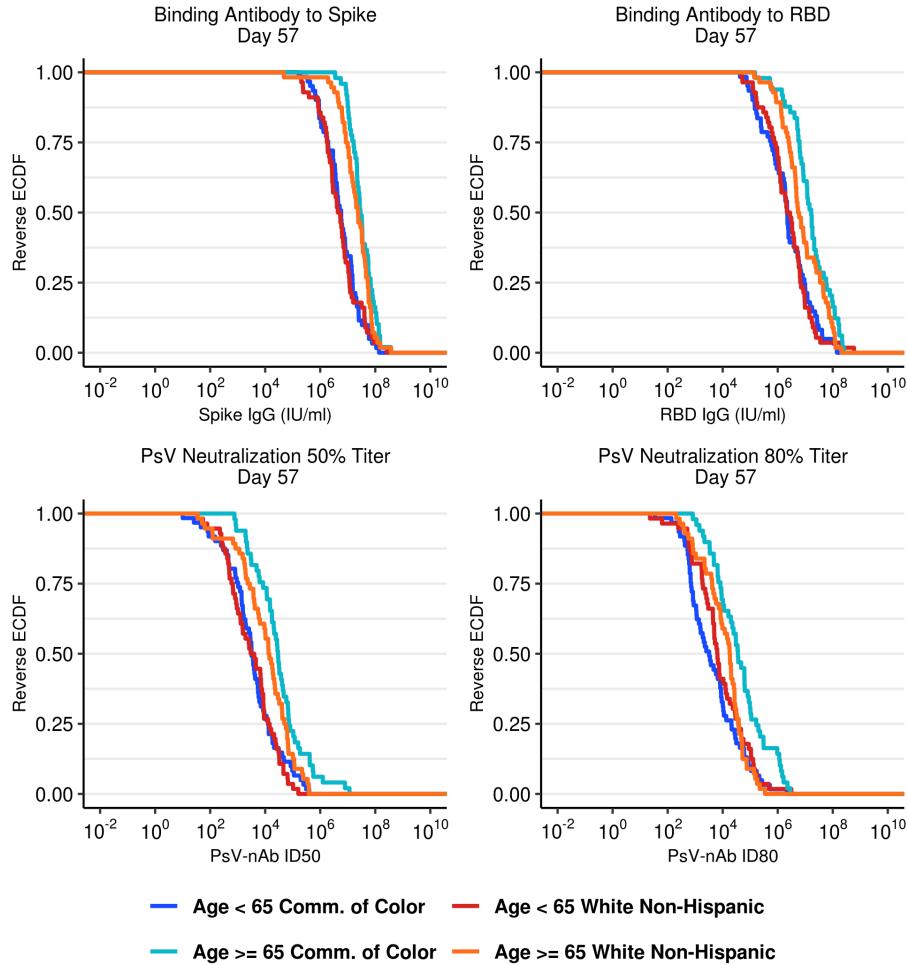


Figure 1.115: (Mock data) RCDF plots for D57 Ab markers: baseline positive vaccine arm by age and dichotomous classification of race and ethnic group.

## 1.6. BOXPLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT129

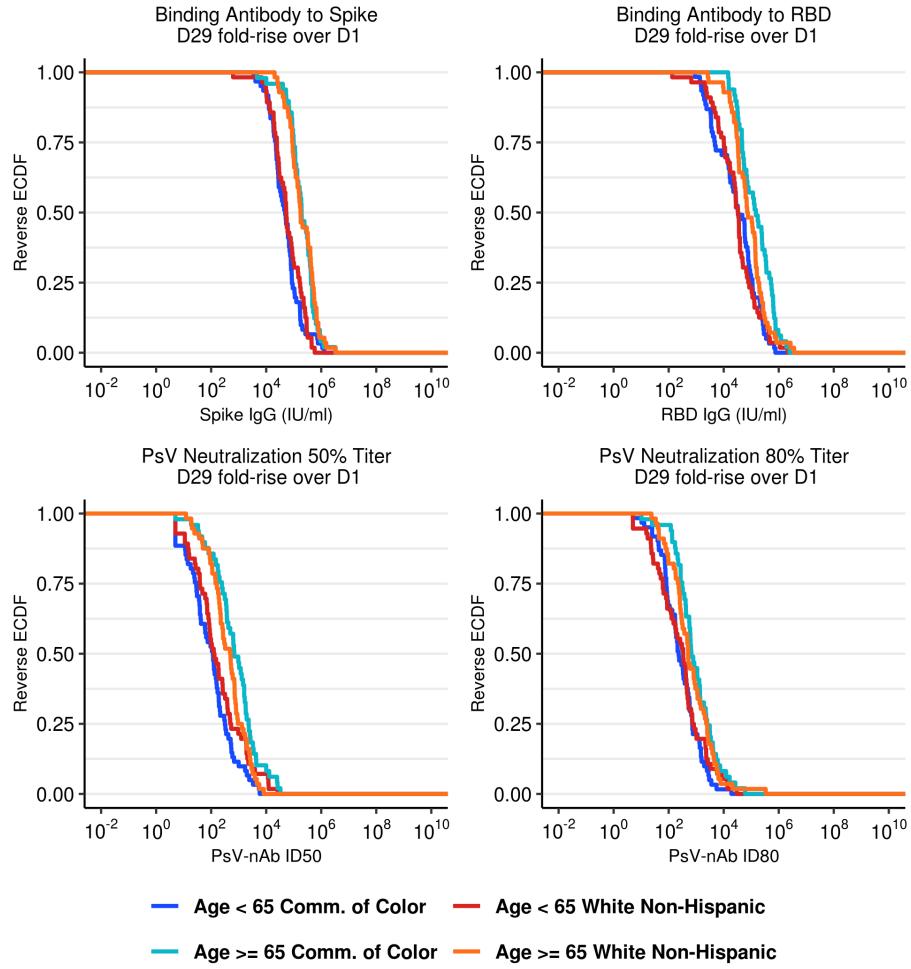


Figure 1.116: (Mock data) RCDF plots for D29 fold-rise over D1 Ab markers: baseline positive vaccine arm by age and dichotomous classification of race and ethnic group.

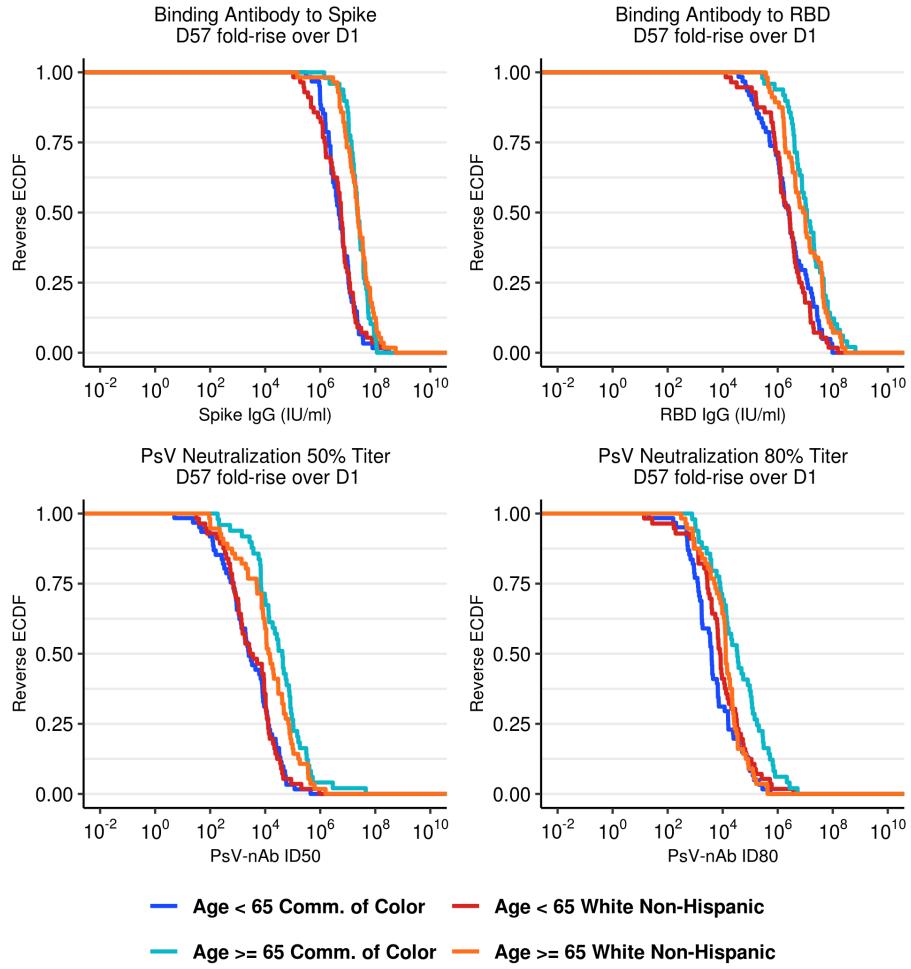


Figure 1.117: (Mock data) RCDF plots for D57 fold-rise over D1 Ab markers: baseline positive vaccine arm by age and dichotomous classification of race and ethnic group.

## 1.6. BOXPLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT131

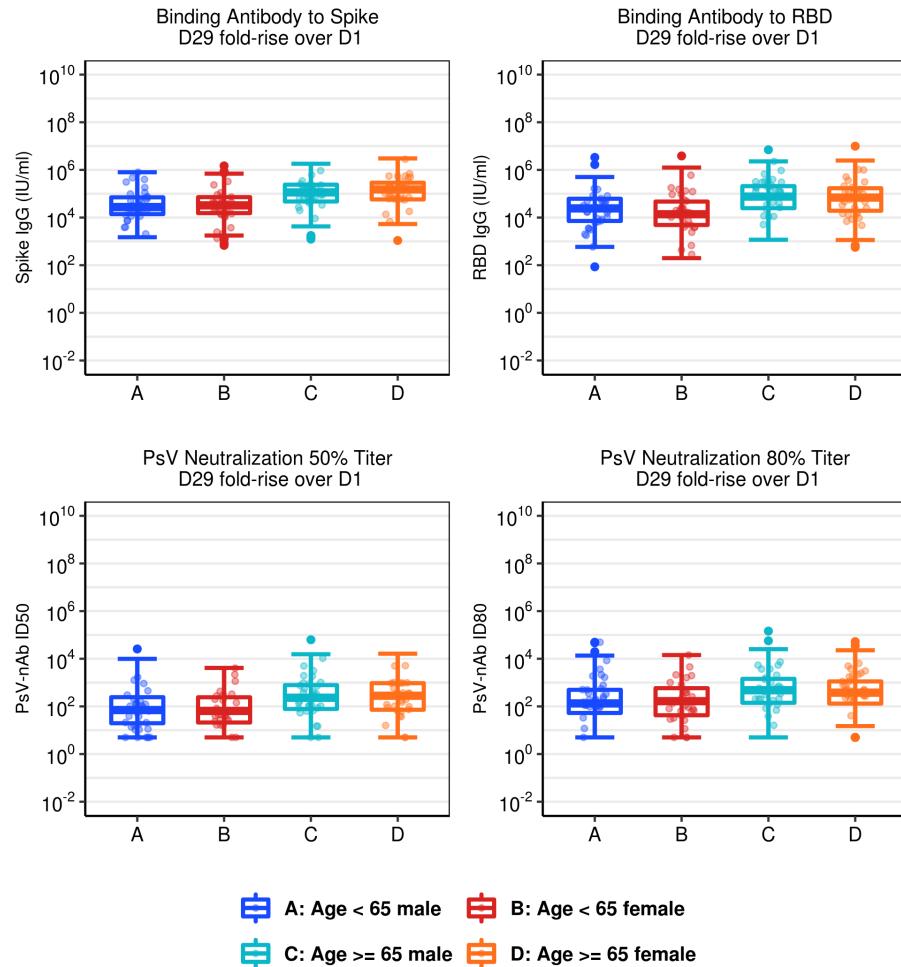


Figure 1.118: (Mock data) Boxplots of D29 fold-rise over D1 Ab markers: Baseline negative vaccine arm by age and sex assigned at birth.

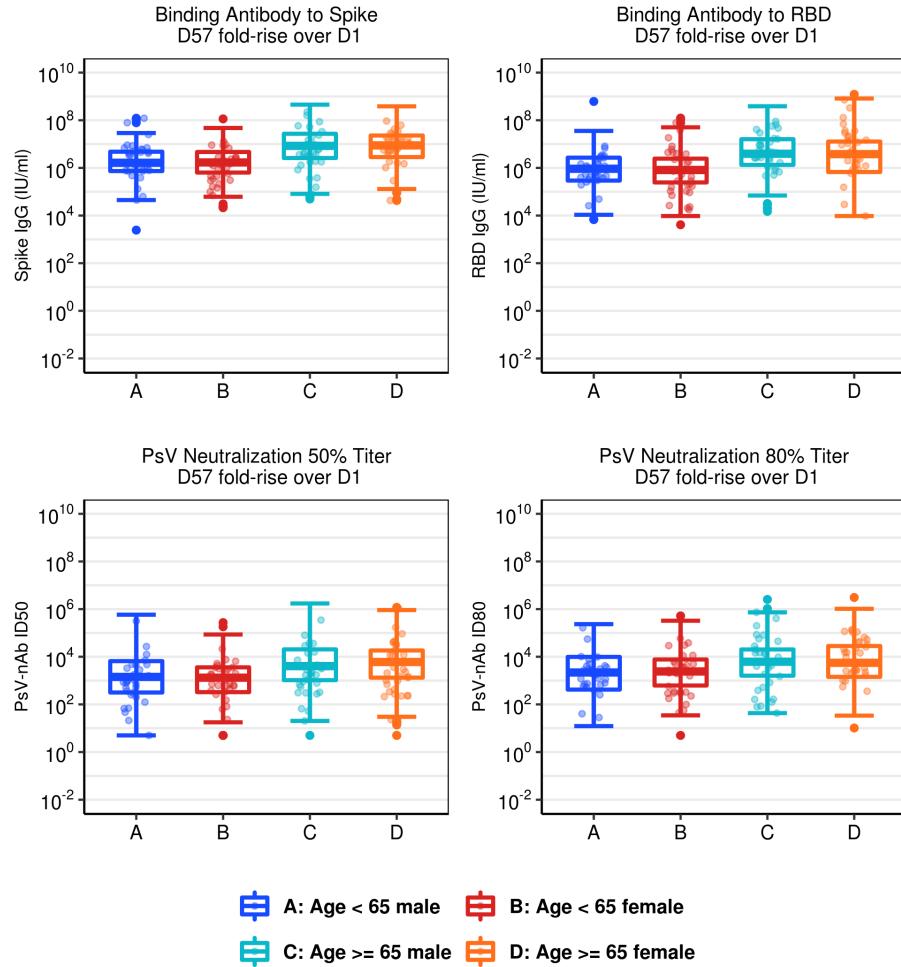


Figure 1.119: (Mock data) Boxplots of D57 fold-rise over D1 Ab markers: Baseline negative vaccine arm by age and sex assigned at birth.

1.6. BOXPLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT133

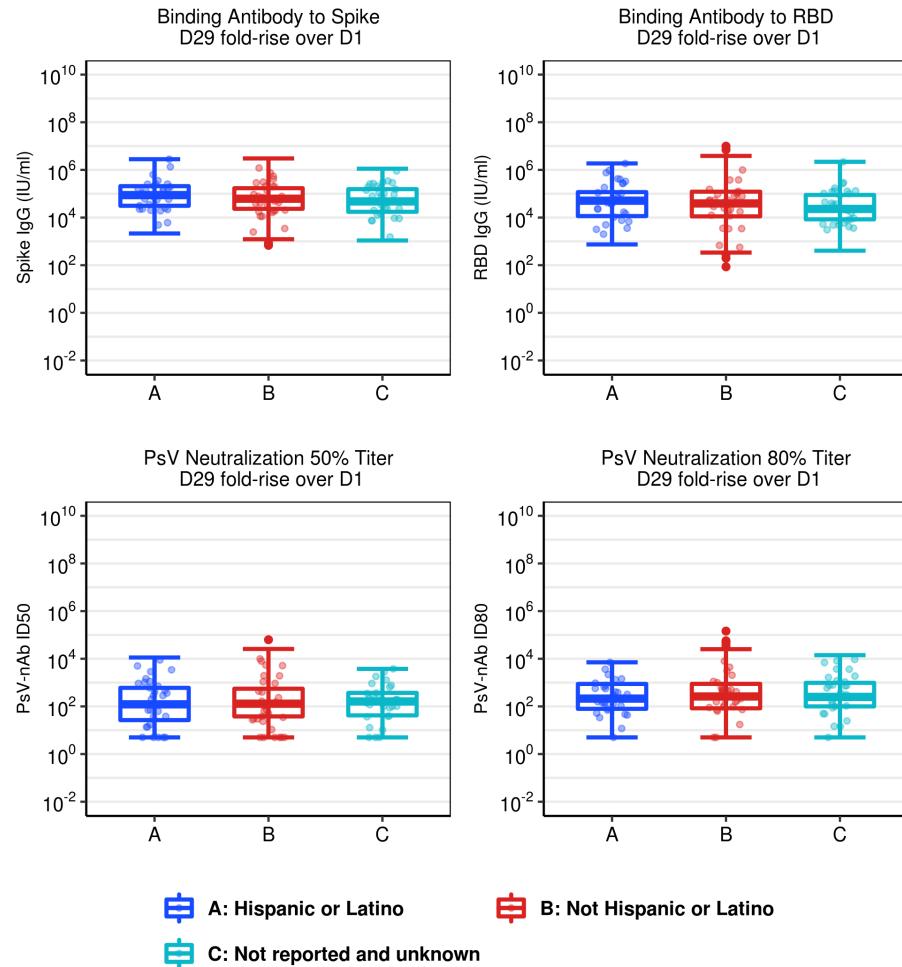


Figure 1.120: (Mock data) Boxplots of D29 fold-rise over D1 Ab markers: Baseline negative vaccine arm by ethnicity.

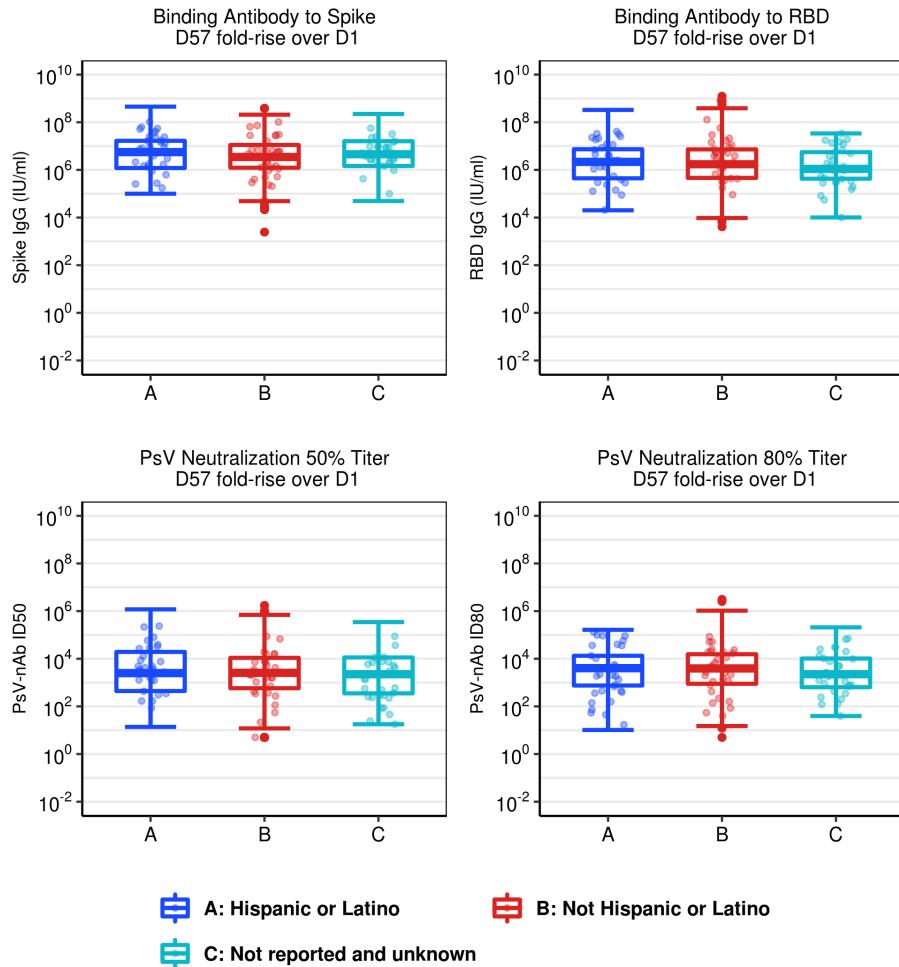


Figure 1.121: (Mock data) Boxplots of D57 fold-rise over D1 Ab markers: Baseline negative vaccine arm by ethnicity.

1.6. BOXPLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT135

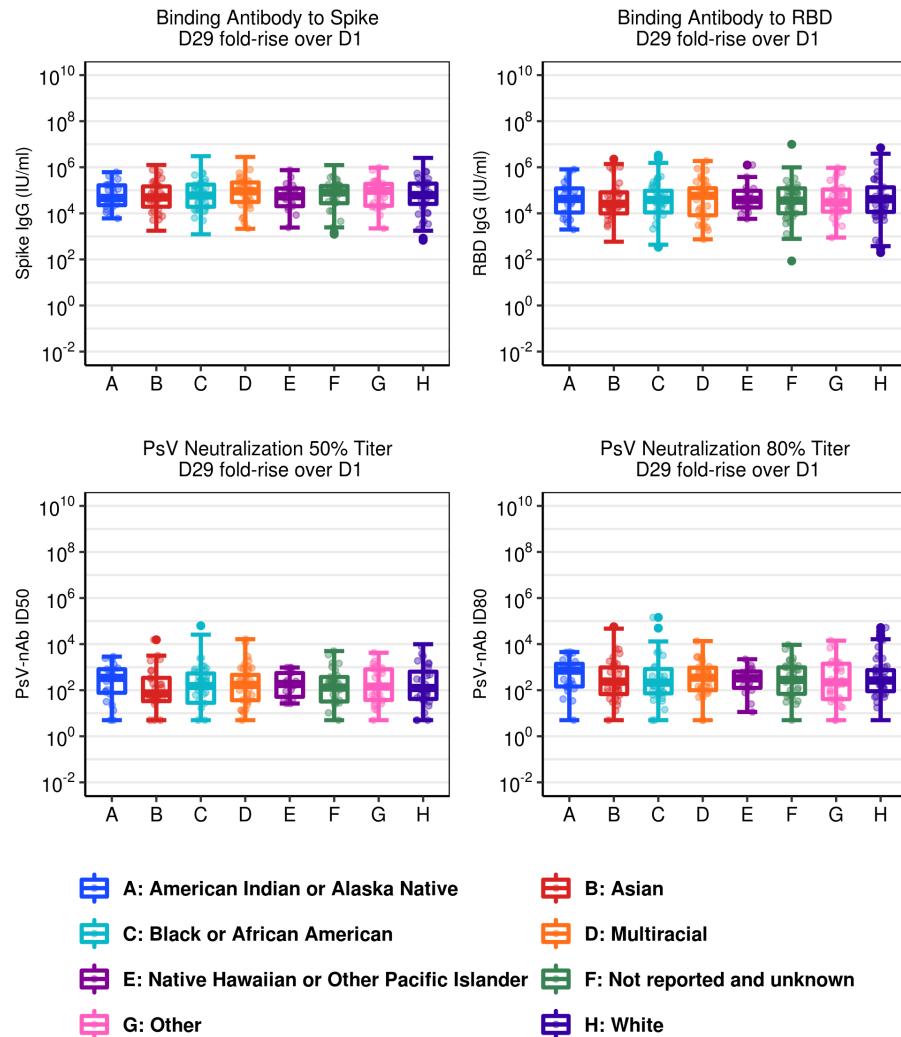


Figure 1.122: (Mock data) Boxplots of D29 fold-rise over D1 Ab markers: Baseline negative vaccine arm by race.

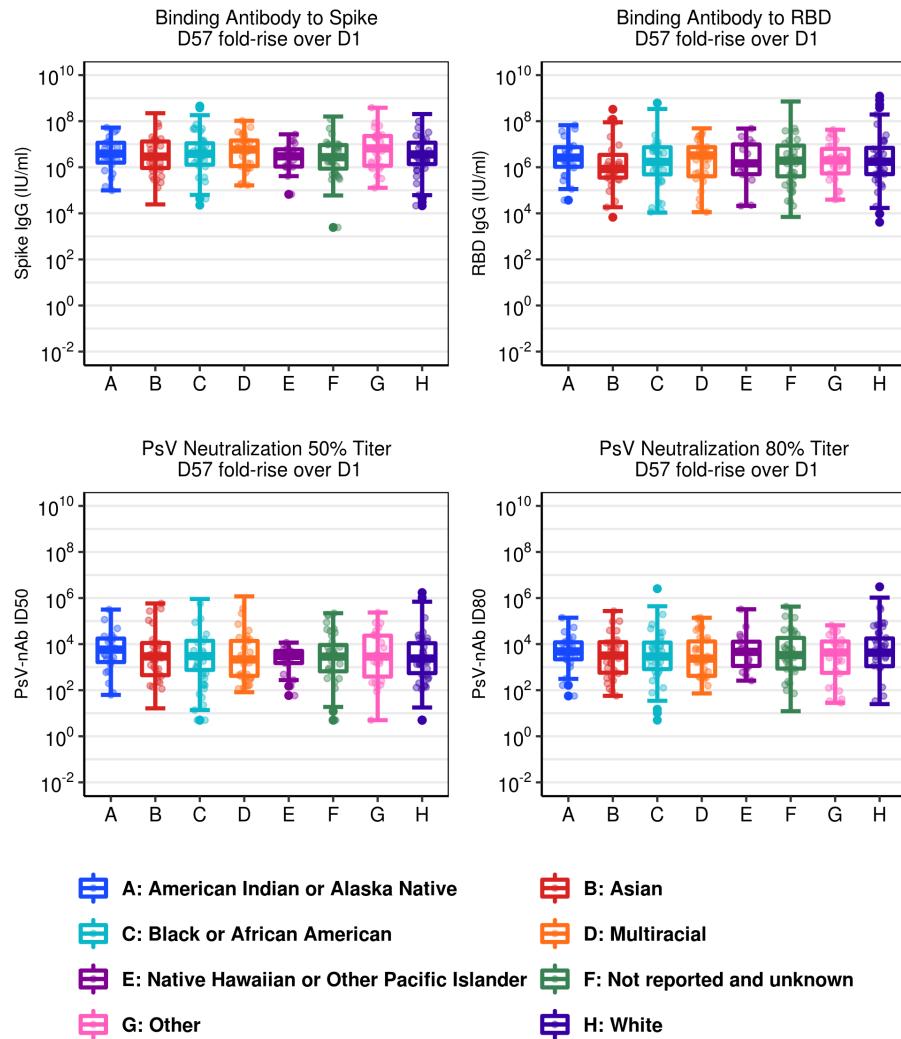


Figure 1.123: (Mock data) Boxplots of D57 fold-rise over D1 Ab markers: Baseline negative vaccine arm by race.

1.6. BOXPLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT137

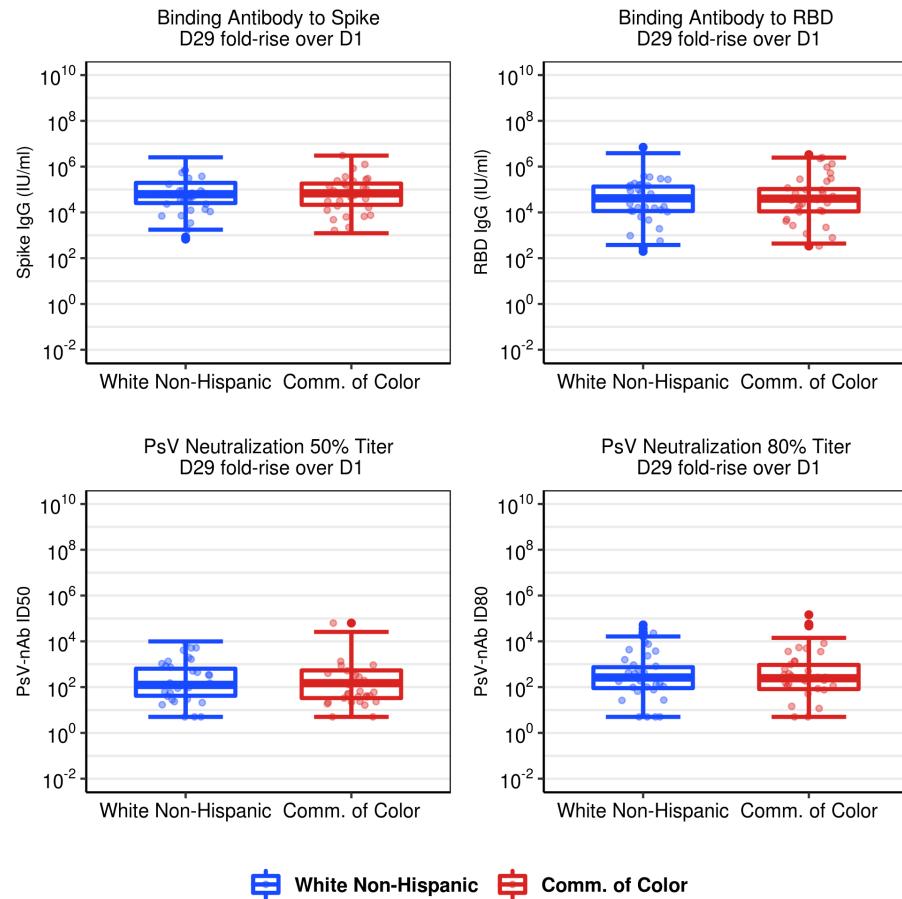


Figure 1.124: (Mock data) Boxplots of D29 fold-rise over D1 Ab markers: Baseline negative vaccine arm by dichotomous classification of race and ethnic group.

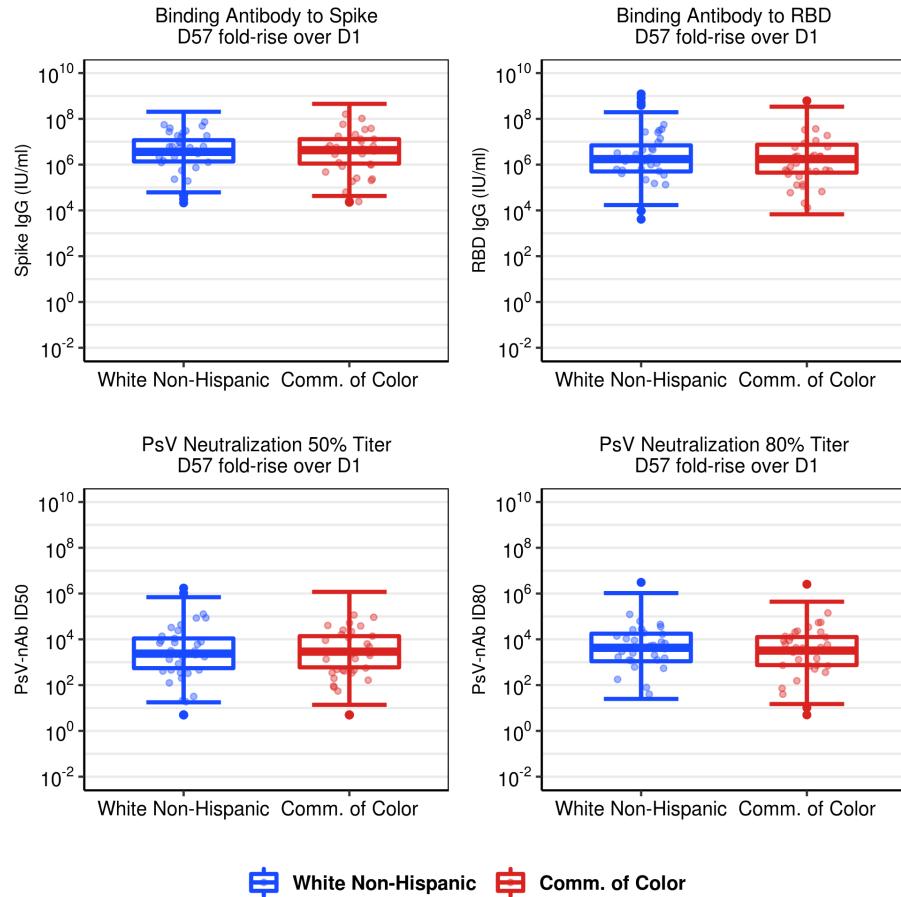


Figure 1.125: (Mock data) Boxplots of D57 fold-rise over D1 Ab markers: Baseline negative vaccine arm by dichotomous classification of race and ethnic group.

1.6. BOXPLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT139

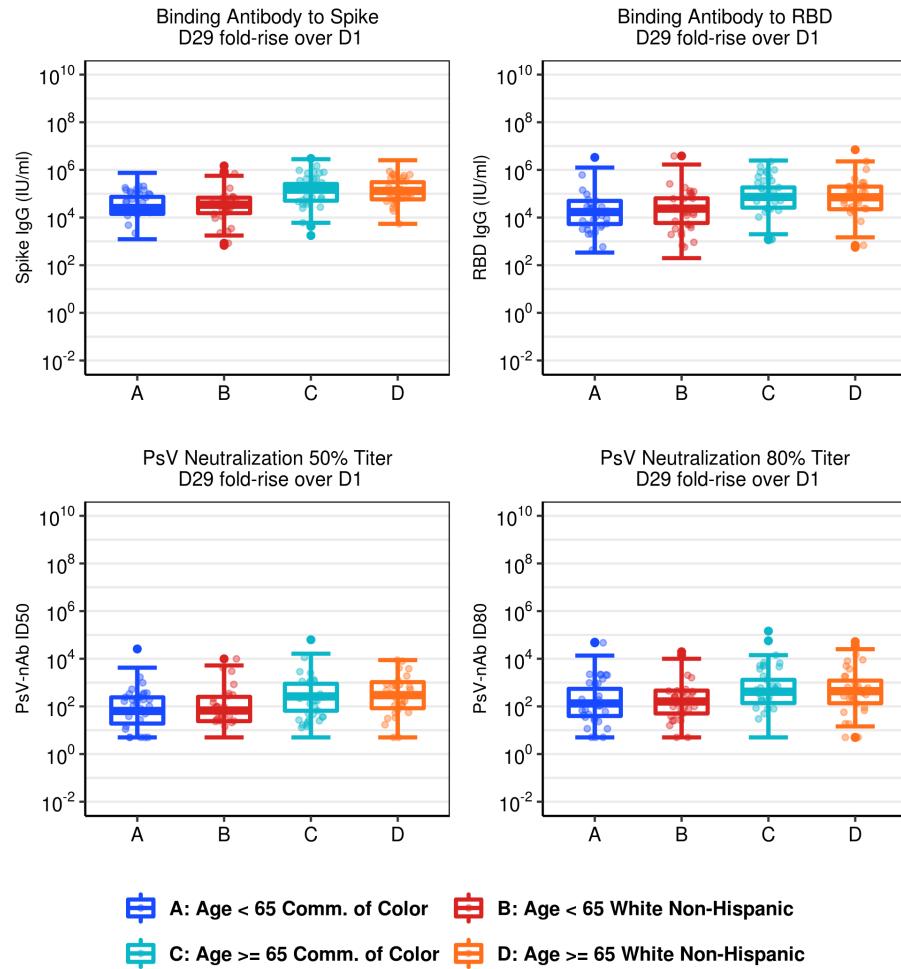


Figure 1.126: (Mock data) Boxplots of D29 fold-rise over D1 Ab markers: Baseline negative vaccine arm by age and dichotomous classification of race and ethnic group.

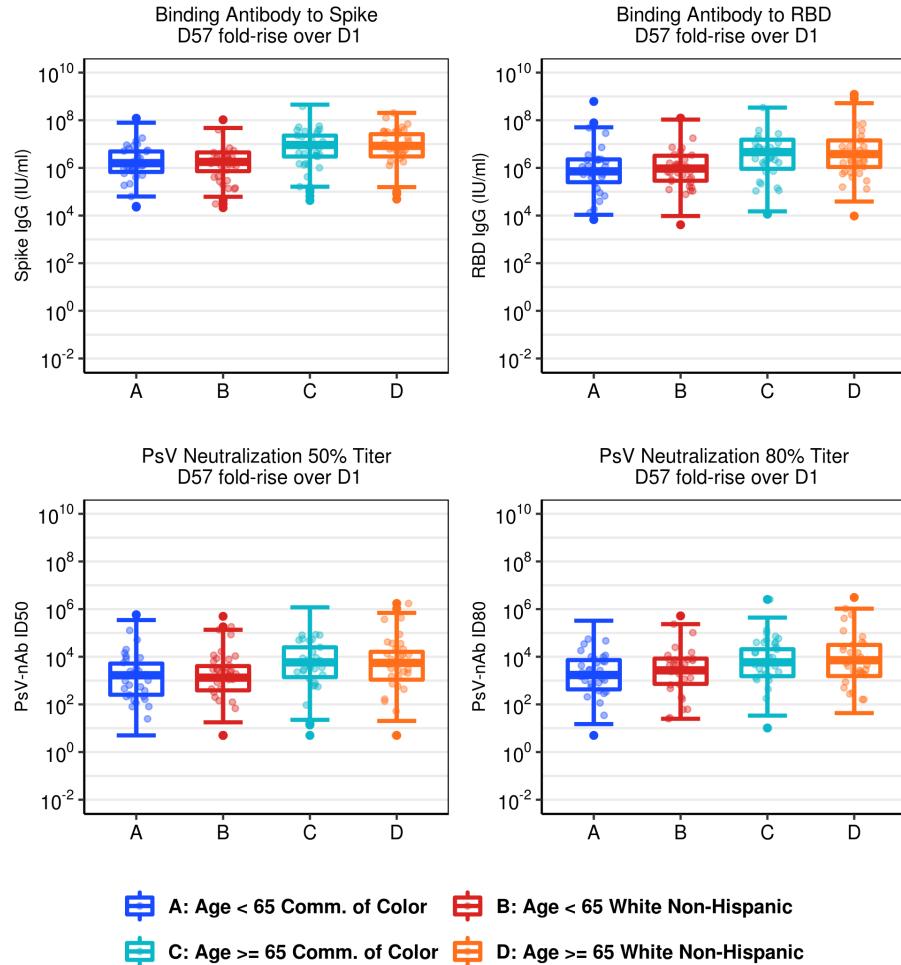


Figure 1.127: (Mock data) Boxplots of D57 fold-rise over D1 Ab markers: Baseline negative vaccine arm by age and dichotomous classification of race and ethnic group.

1.6. BOXPLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT141

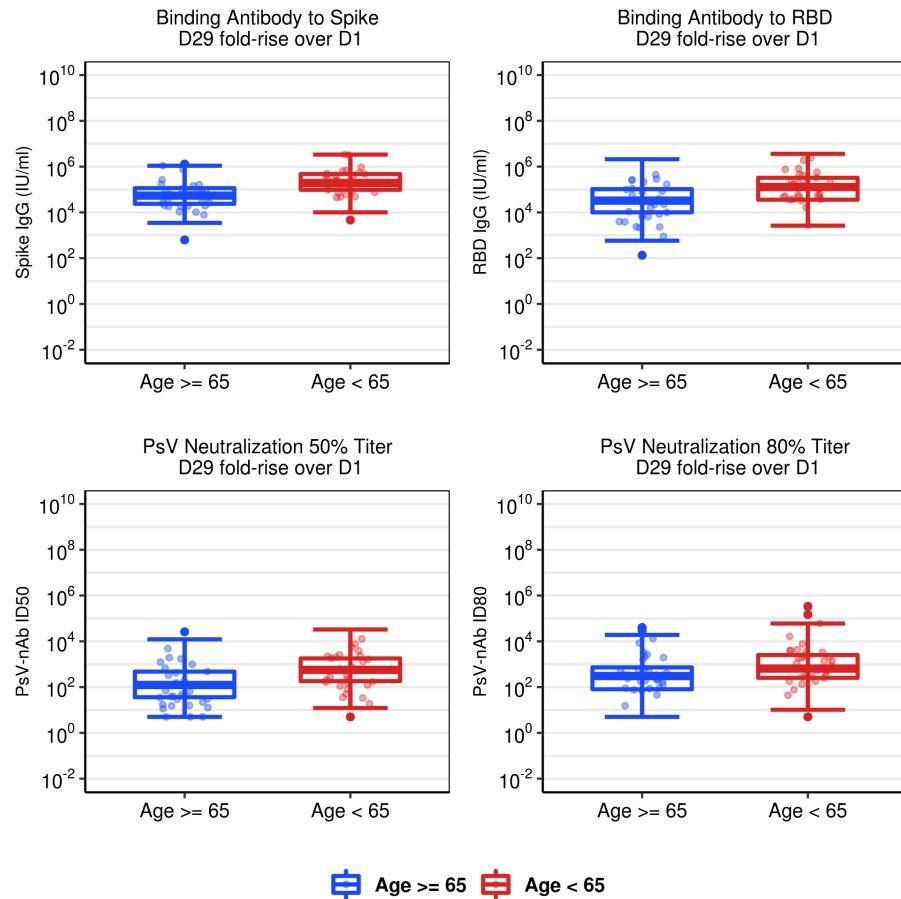


Figure 1.128: (Mock data) Boxplots of D29 fold-rise over D1 Ab markers: baseline positive vaccine arm by age group.

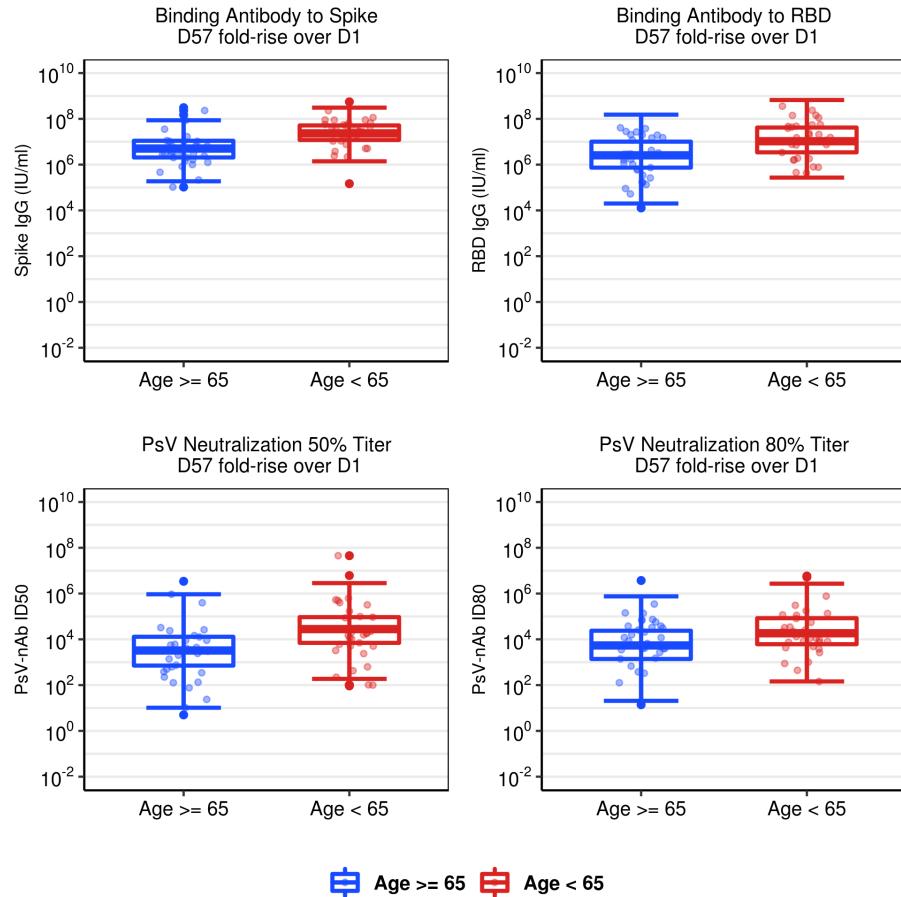


Figure 1.129: (Mock data) Boxplots of D57 fold-rise over D1 Ab markers: baseline positive vaccine arm by age group.

1.6. BOXPLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT143

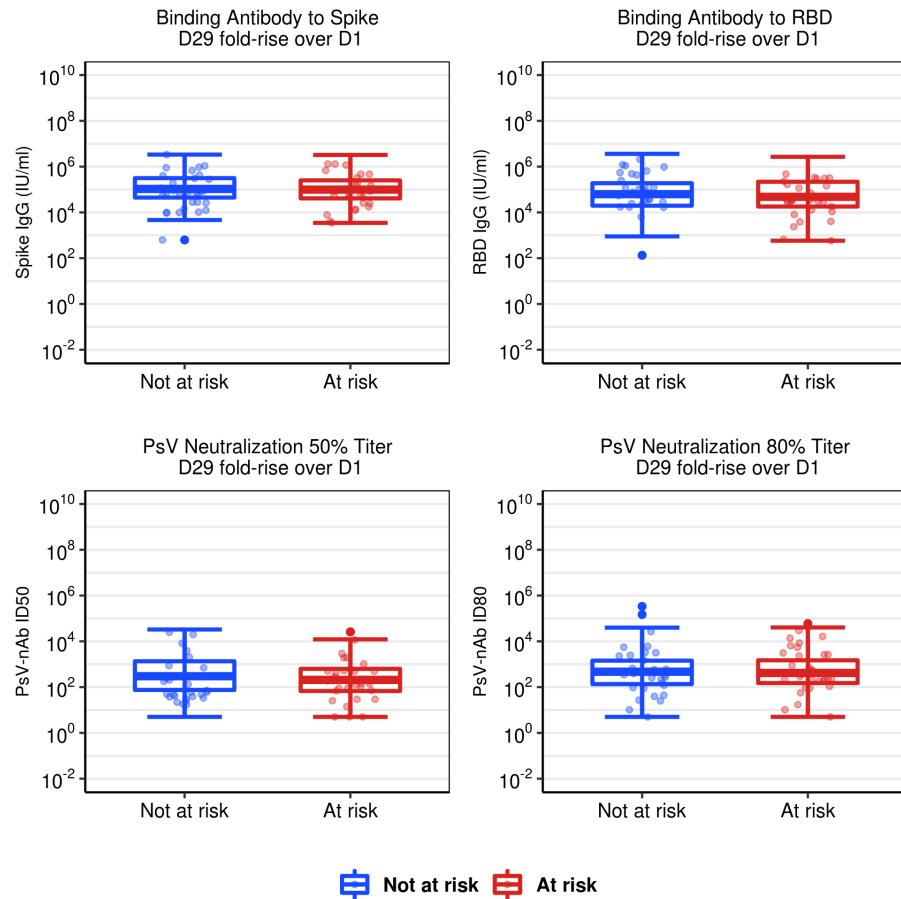


Figure 1.130: (Mock data) Boxplots of D29 fold-rise over D1 Ab markers: baseline positive vaccine arm by high-risk condition.

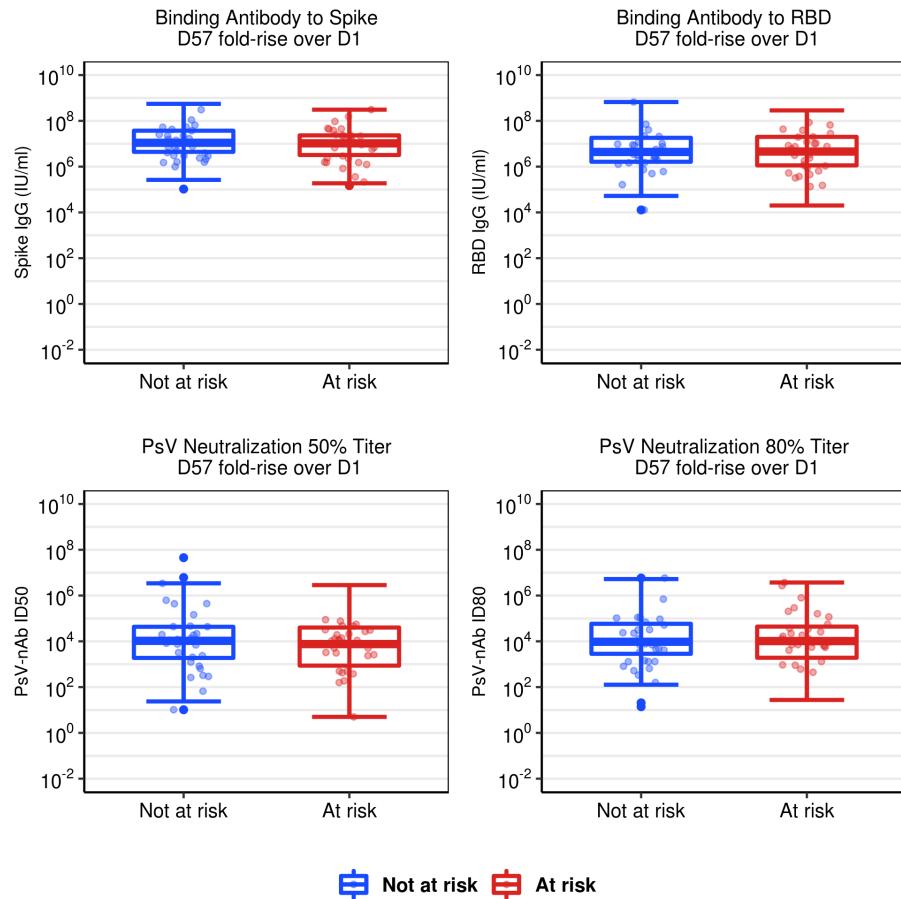


Figure 1.131: (Mock data) Boxplots of D57 fold-rise over D1 Ab markers: baseline positive vaccine arm by high-risk condition.

1.6. BOXPLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT145

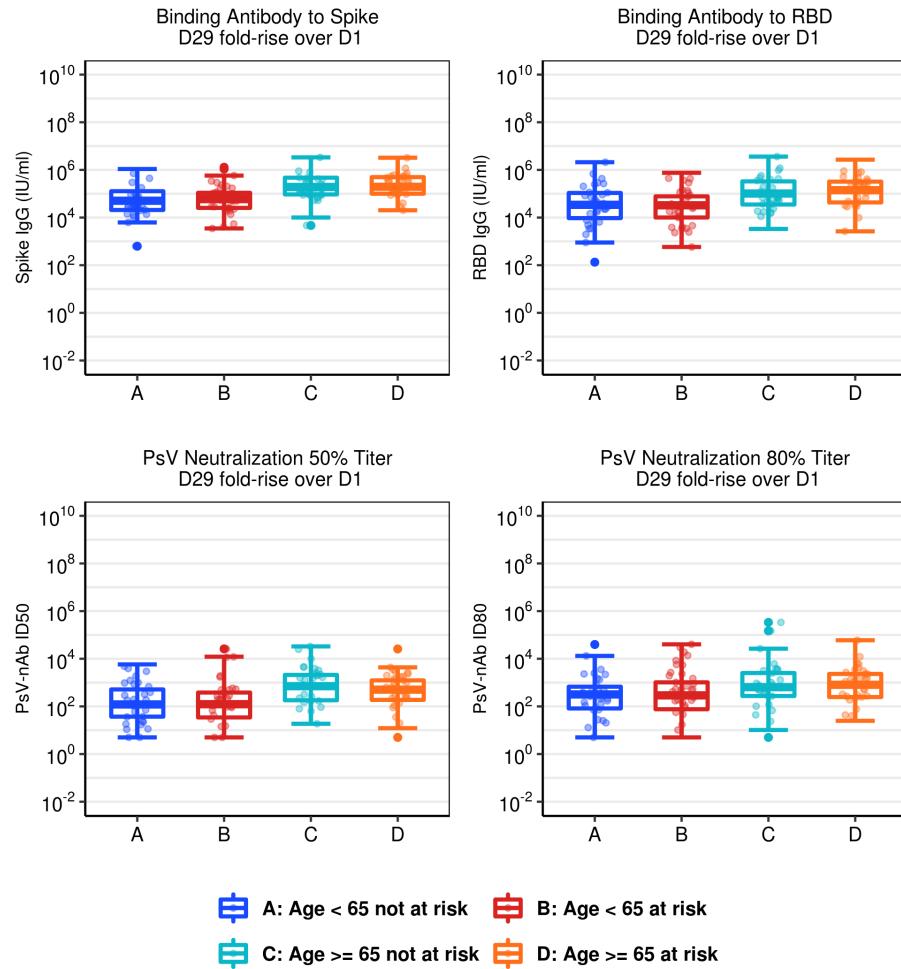


Figure 1.132: (Mock data) Boxplots of D29 fold-rise over D1 Ab markers: baseline positive vaccine arm by age and high-risk condition.

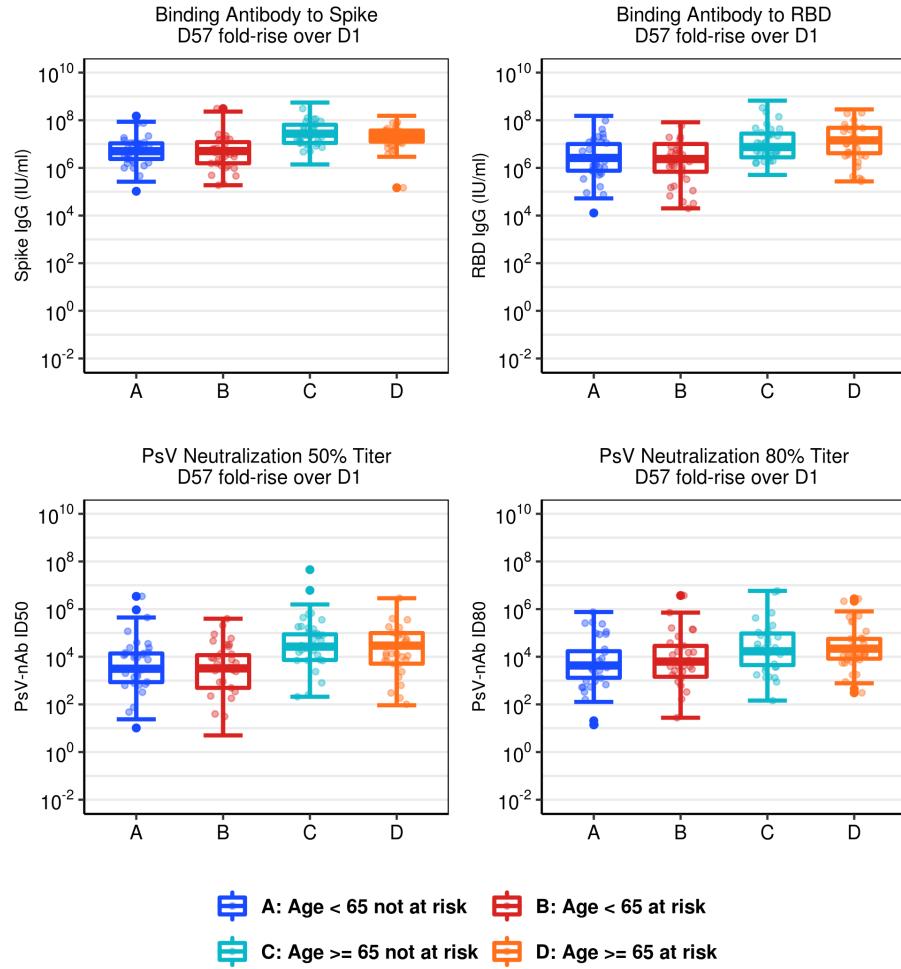


Figure 1.133: (Mock data) Boxplots of D57 fold-rise over D1 Ab markers: baseline positive vaccine arm by age and high-risk condition.

1.6. BOXPLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT147

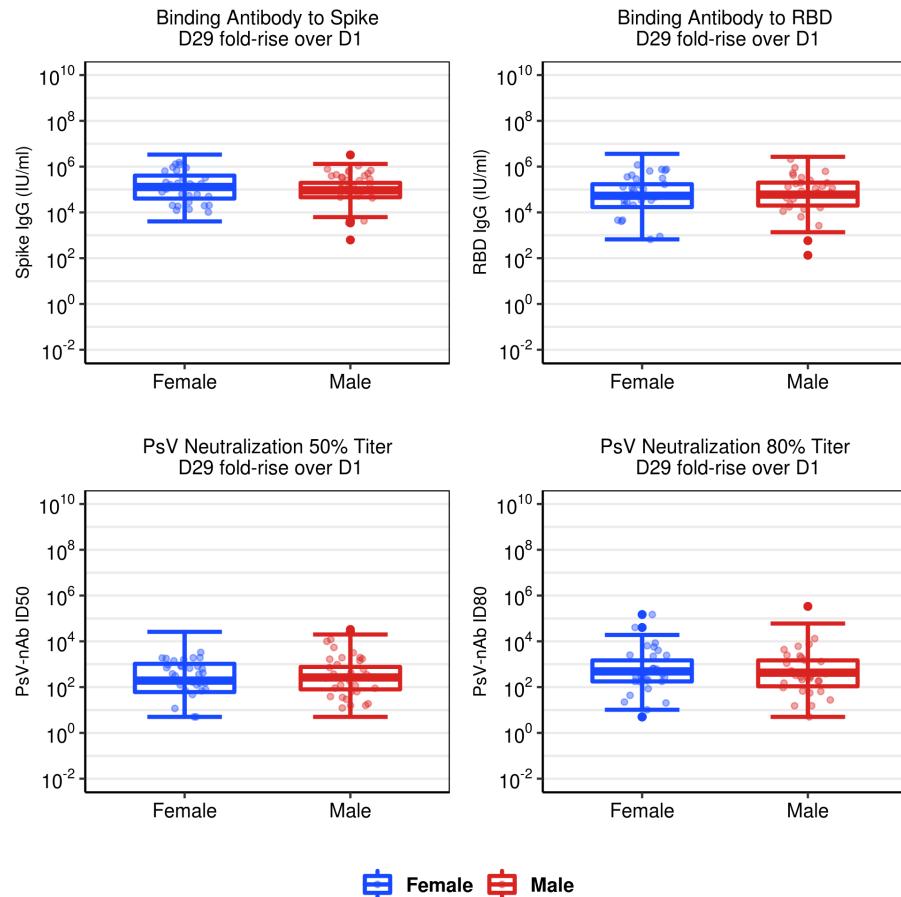


Figure 1.134: (Mock data) Boxplots of D29 fold-rise over D1 Ab markers: baseline positive vaccine arm by sex assigned at birth.

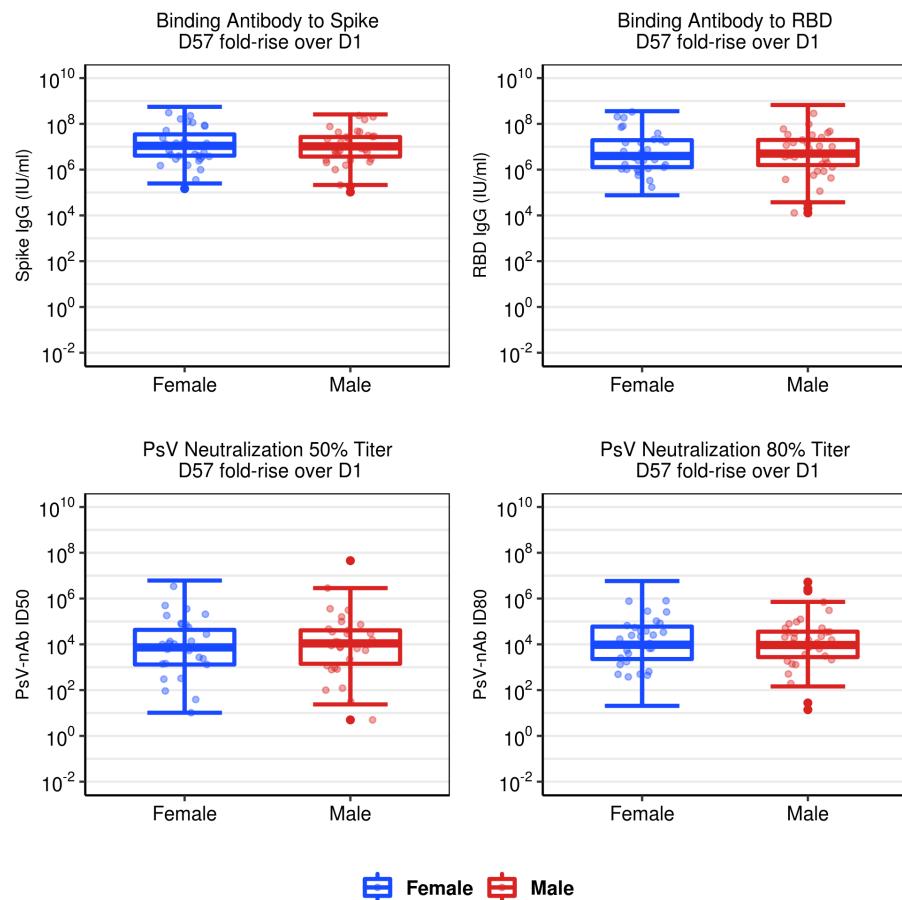


Figure 1.135: (Mock data) Boxplots of D57 fold-rise over D1 Ab markers: baseline positive vaccine arm by sex assigned at birth.

1.6. BOXPLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT149

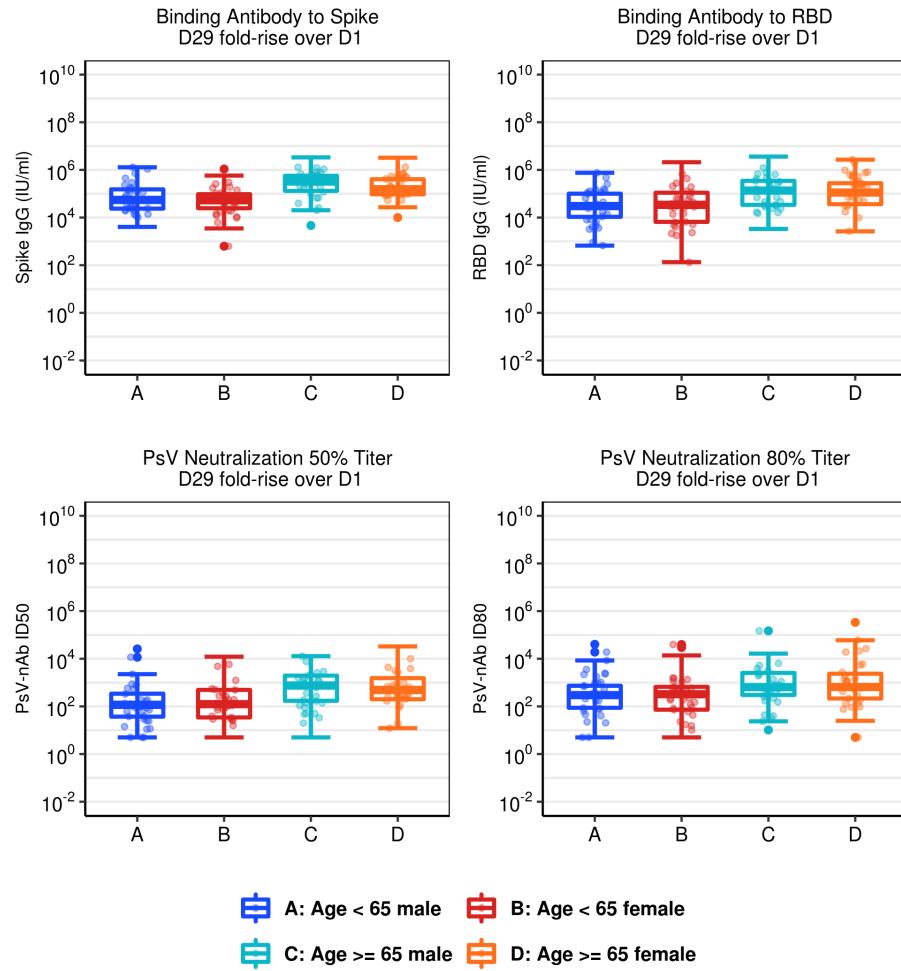


Figure 1.136: (Mock data) Boxplots of D29 fold-rise over D1 Ab markers: baseline positive vaccine arm by age and sex assigned at birth.

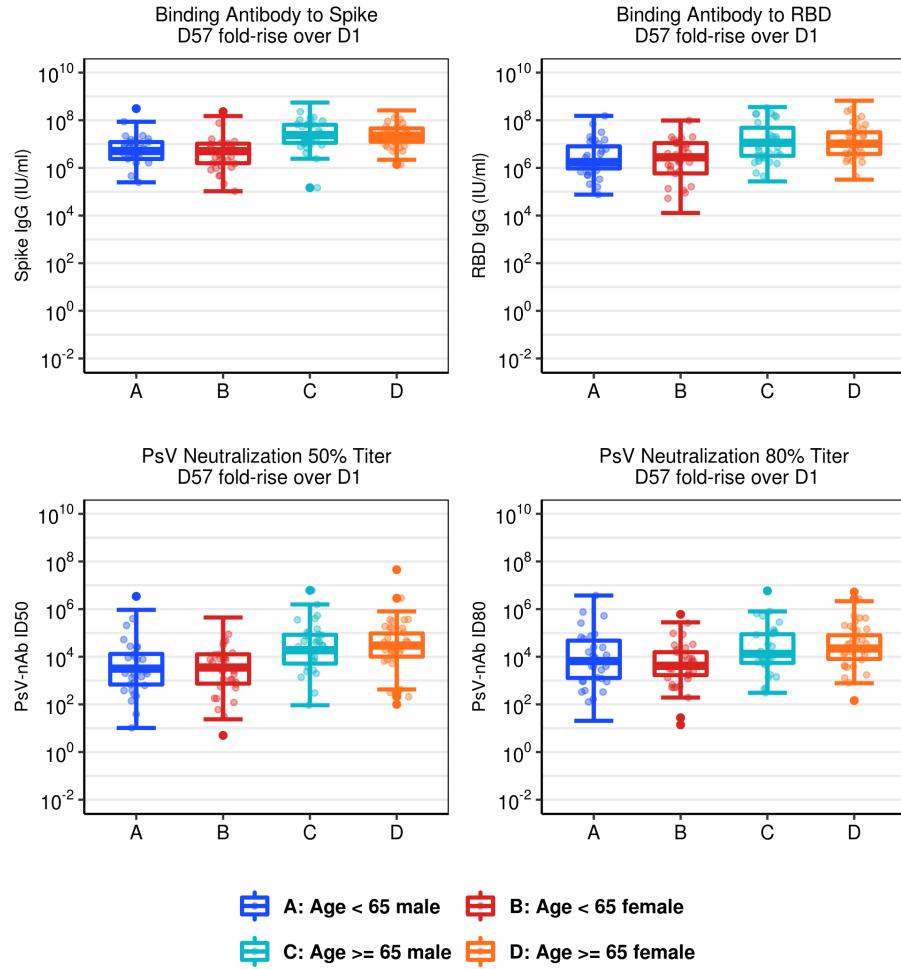


Figure 1.137: (Mock data) Boxplots of D57 fold-rise over D1 Ab markers: baseline positive vaccine arm by age and sex assigned at birth.

## 1.6. BOXPLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT151

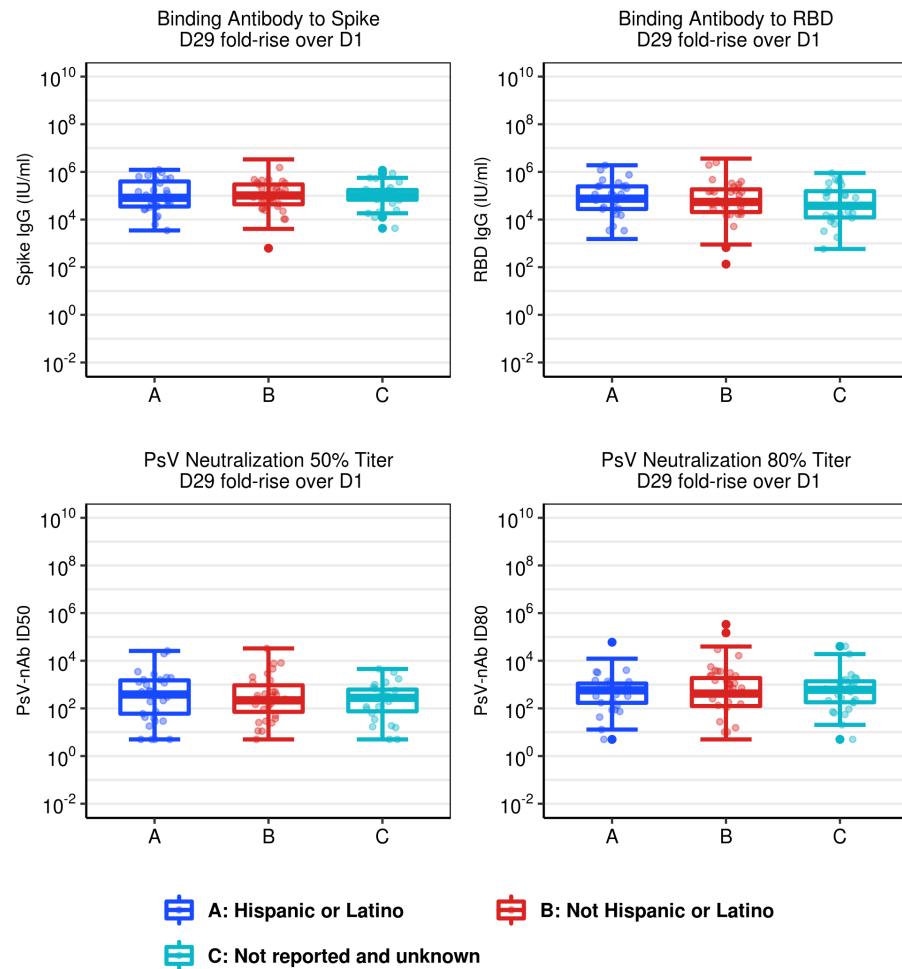


Figure 1.138: (Mock data) Boxplots of D29 fold-rise over D1 Ab markers: baseline positive vaccine arm by ethnicity.

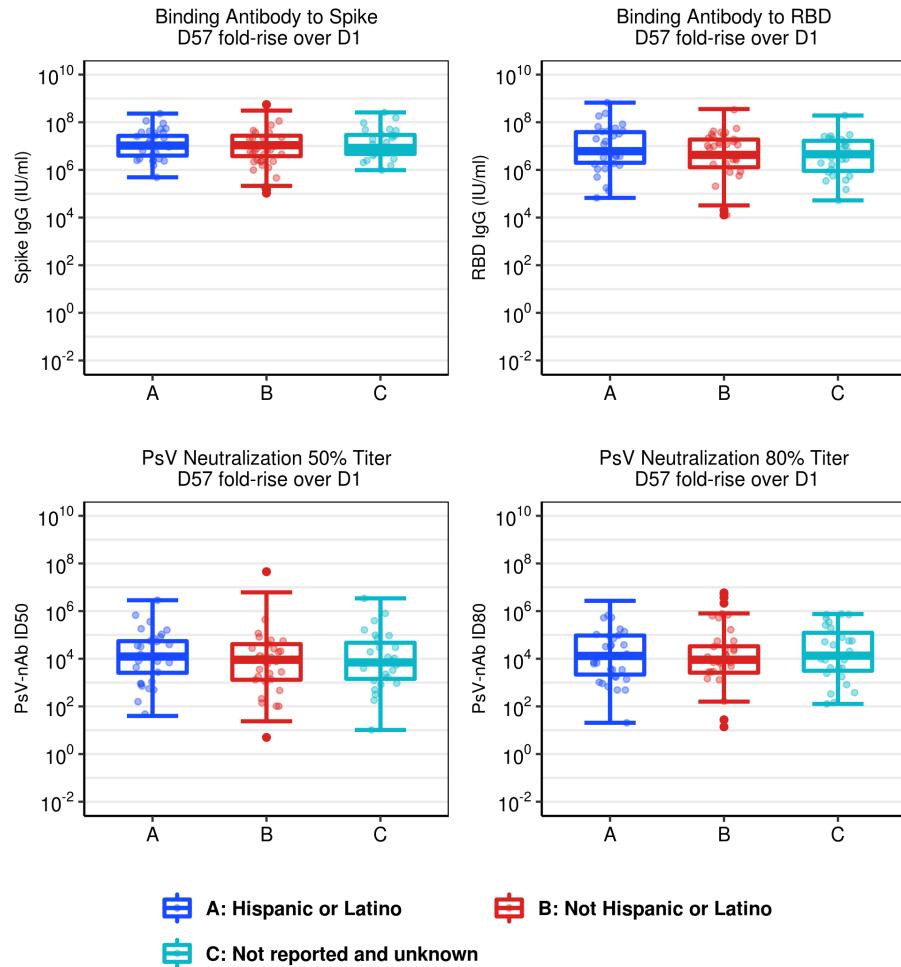


Figure 1.139: (Mock data) Boxplots of D57 fold-rise over D1 Ab markers: baseline positive vaccine arm by ethnicity.

## 1.6. BOXPLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT153

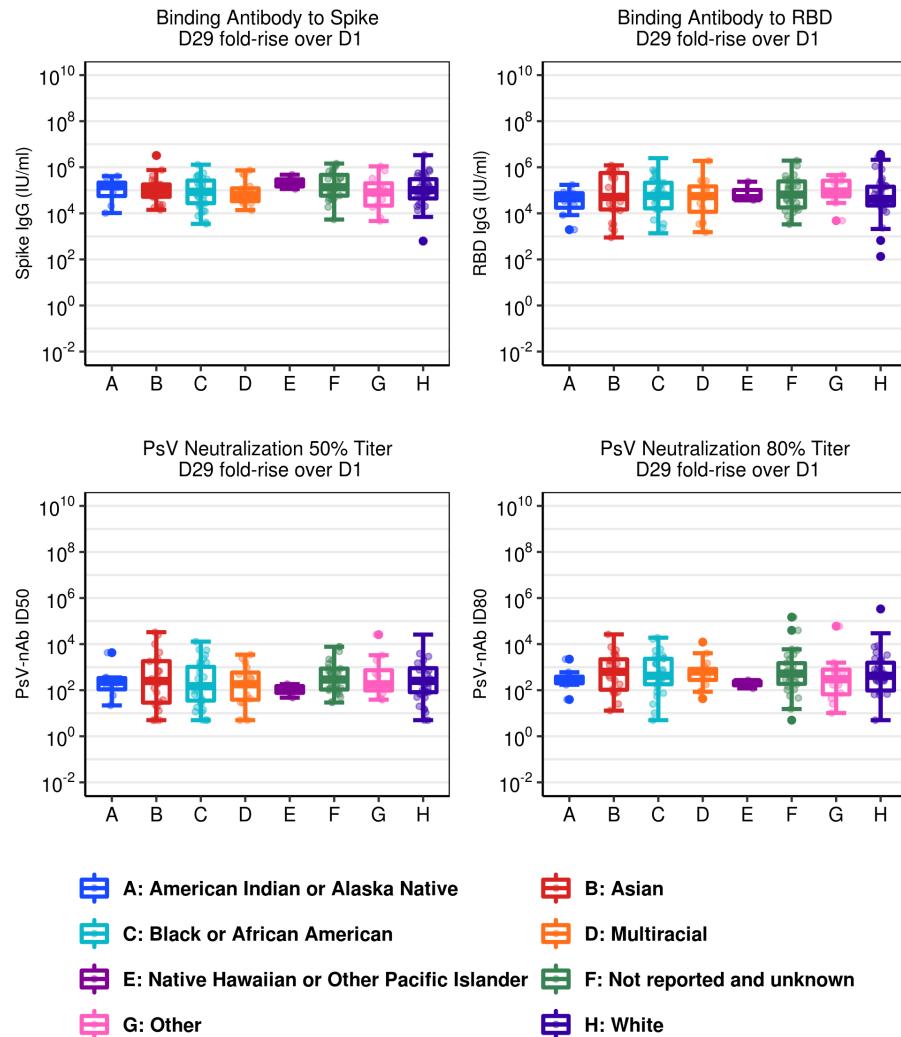


Figure 1.140: (Mock data) Boxplots of D29 fold-rise over D1 Ab markers: baseline positive vaccine arm by race.

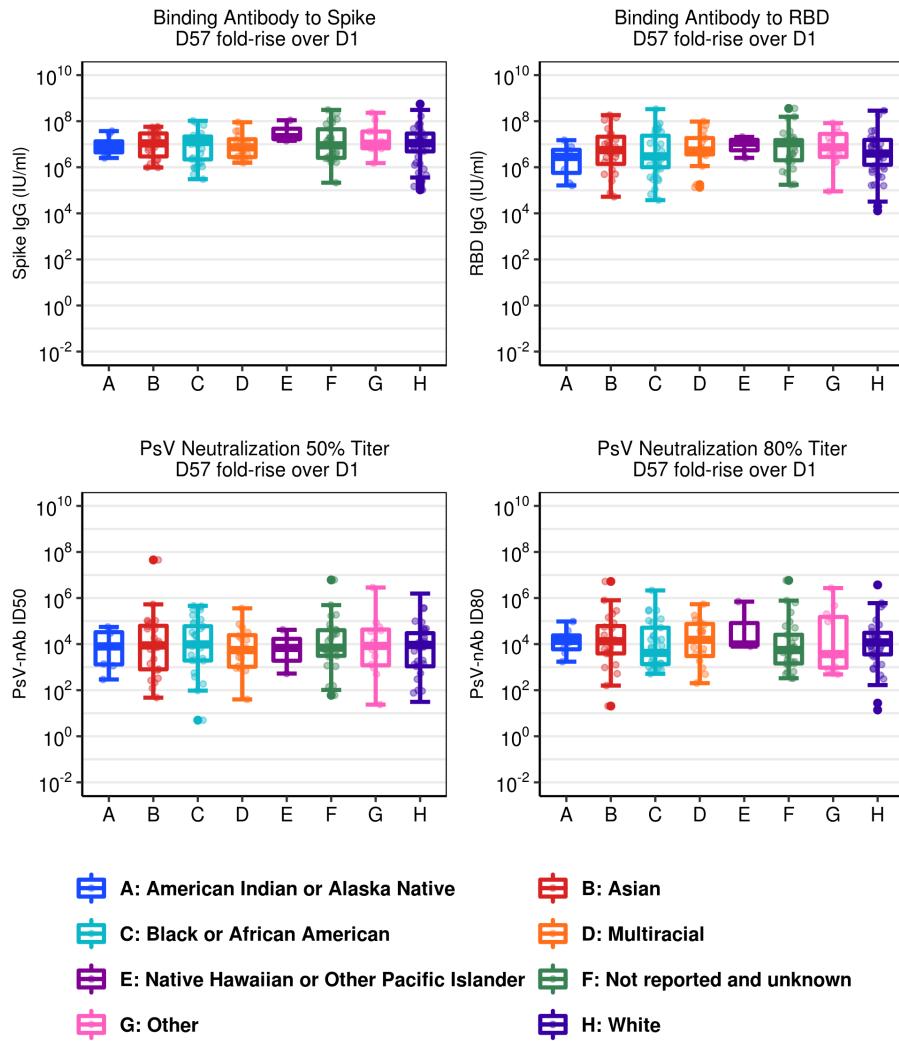


Figure 1.141: (Mock data) Boxplots of D57 fold-rise over D1 Ab markers: baseline positive vaccine arm by race.

1.6. BOXPLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT155

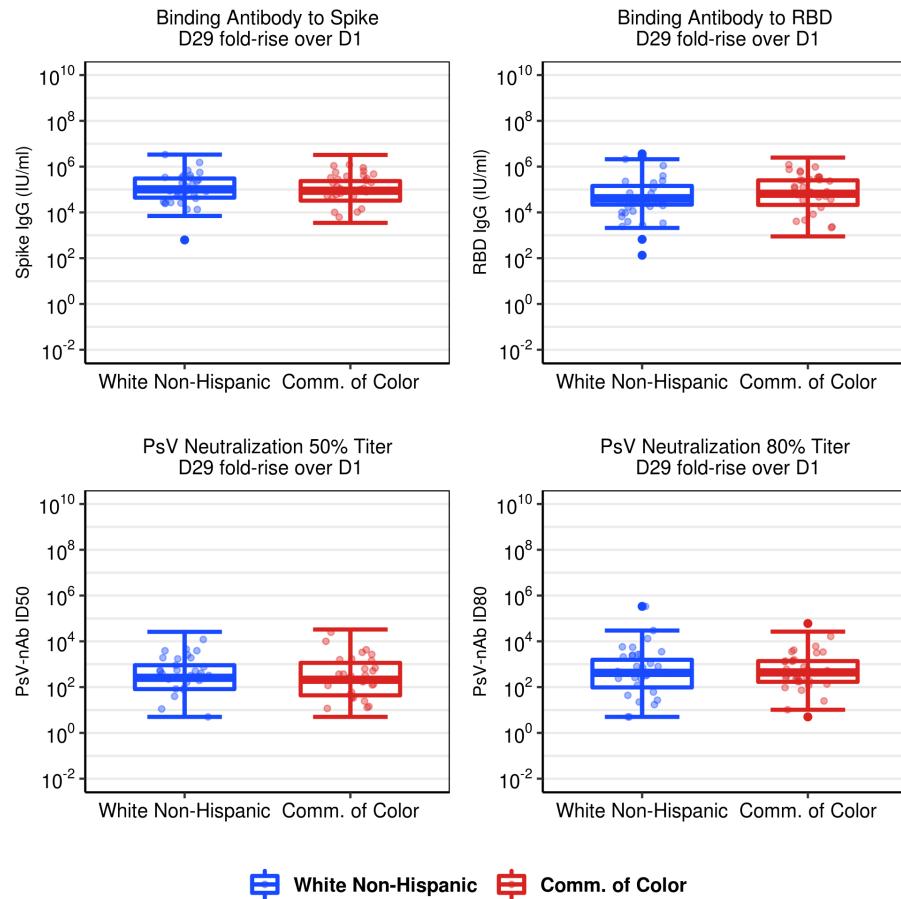


Figure 1.142: (Mock data) Boxplots of D29 fold-rise over D1 Ab markers: baseline positive vaccine arm by dichotomous classification of race and ethnic group.

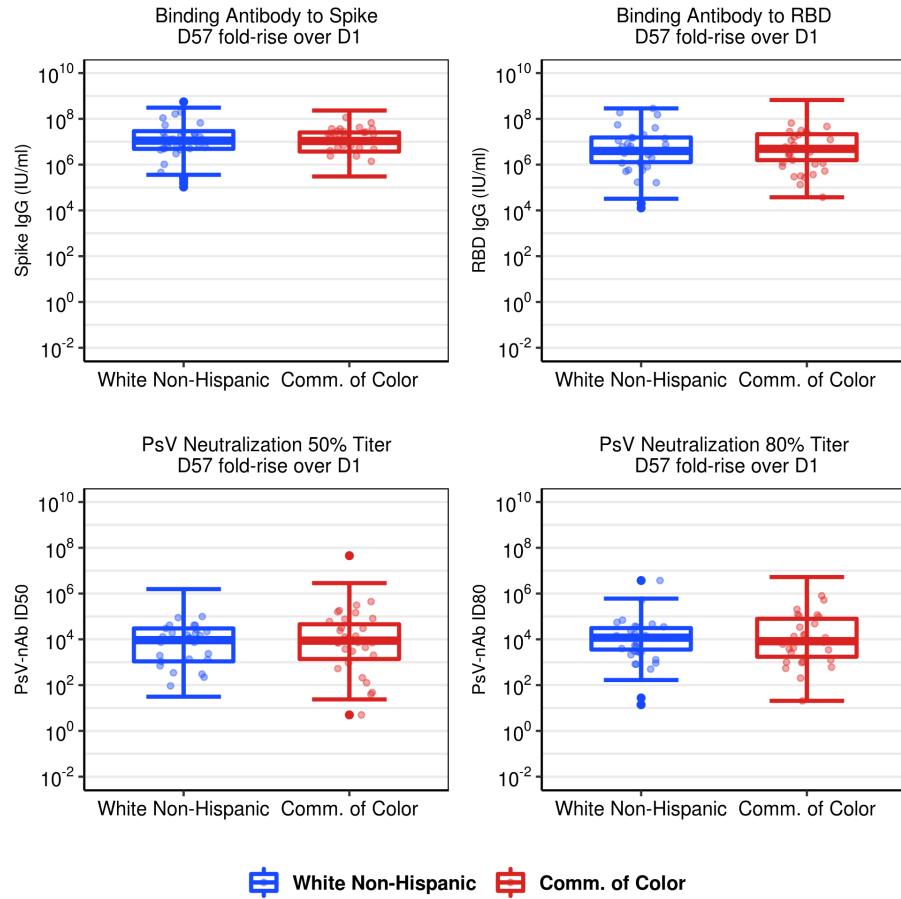


Figure 1.143: (Mock data) Boxplots of D57 fold-rise over D1 Ab markers: baseline positive vaccine arm by dichotomous classification of race and ethnic group.

1.6. BOXPLOTS OF ANTIBODY MARKERS BY DEMOGRAPHICS FOR PER-PROTOCOL COHORT157

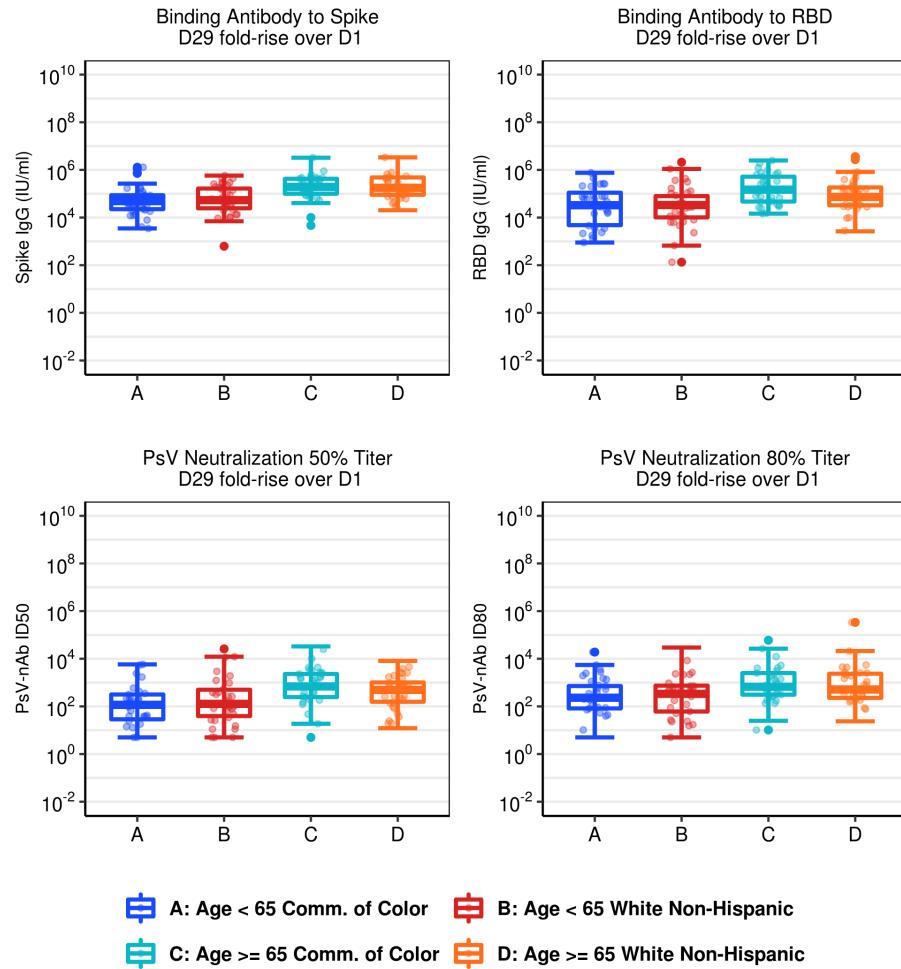


Figure 1.144: (Mock data) Boxplots of D29 fold-rise over D1 Ab markers: baseline positive vaccine arm by age and dichotomous classification of race and ethnic group.

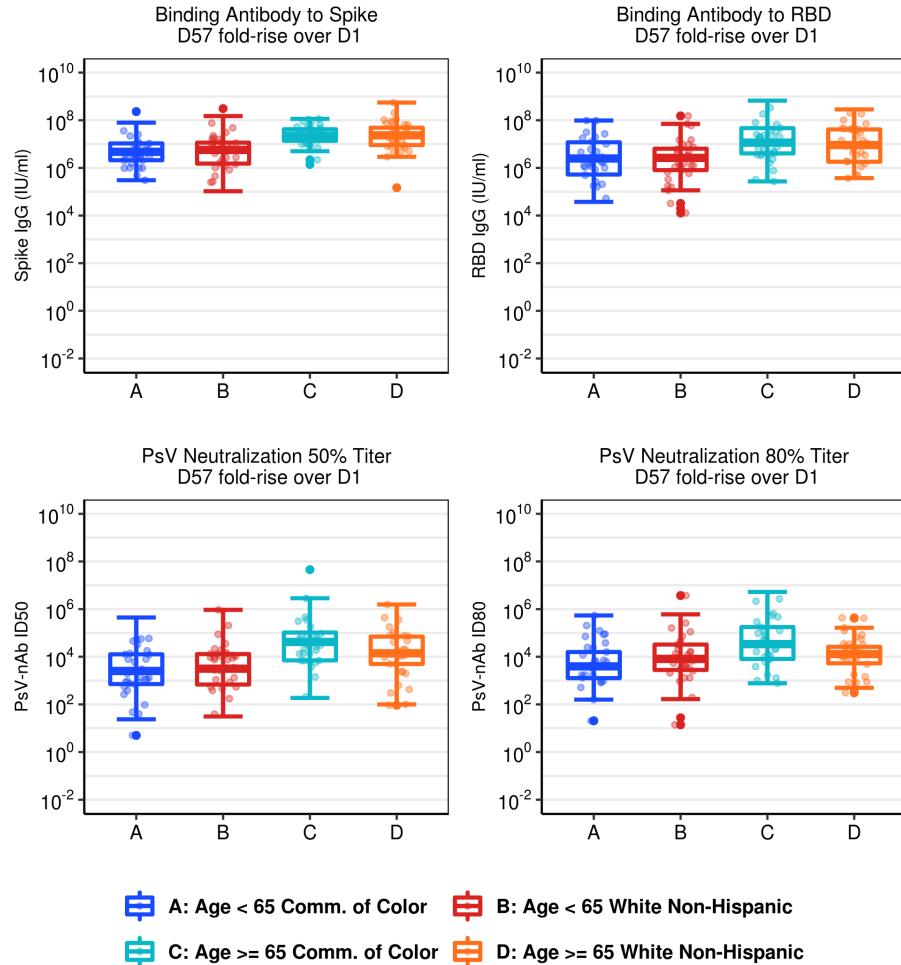


Figure 1.145: (Mock data) Boxplots of D57 fold-rise over D1 Ab markers: baseline positive vaccine arm by age and dichotomous classification of race and ethnic group.

## Chapter 2

# Tabular Description of Immunogenicity Data

2.0.1 Table 1. Demographic

Table 2.1: Table 1. Demographic

| Characteristics                           | Placebo (N = 425) | Vaccine (N = 1180) | Total (N = 1605) |
|---|-------------------|--------------------|------------------|
| Age                                       |                   |                    |                  |
| Age $\leq$ 65                             | 228 (53.6)        | 579 (49.1)         | 807 (50.3)       |
| Age $> 65$                                | 197 (46.4)        | 601 (50.9)         | 798 (49.7)       |
| Mean (range)                              | 56.6 (18, 85)     | 58.2 (18, 85)      | 57.8 (18, 85)    |
| BMI                                       |                   |                    |                  |
| Mean +/- SD                               | 29.8 +/- 7.5      | 29.9 +/- 7.1       | 29.9 +/- 7.2     |
| Sex                                       |                   |                    |                  |
| Female                                    | 234 (55.1)        | 661 (56.0)         | 895 (55.8)       |
| Male                                      | 191 (44.9)        | 519 (44.0)         | 710 (44.2)       |
| Hispanic or Latino ethnicity              |                   |                    |                  |
| Hispanic or Latino                        | 62 (14.6)         | 140 (11.9)         | 202 (12.6)       |
| Not Hispanic or Latino                    | 317 (74.6)        | 933 (79.1)         | 1250 (77.9)      |
| Not reported and unknown                  | 46 (10.8)         | 107 (9.1)          | 153 (9.5)        |
| Race                                      |                   |                    |                  |
| American Indian or Alaska Native          | 13 (3.2)          | 31 (2.7)           | 44 (2.8)         |
| Asian                                     | 33 (8.0)          | 97 (8.5)           | 130 (8.3)        |
| Black or African American                 | 84 (20.4)         | 223 (19.5)         | 307 (19.7)       |
| Multiracial                               | 24 (5.8)          | 66 (5.8)           | 90 (5.8)         |
| Native Hawaiian or Other Pacific Islander | 7 (1.7)           | 20 (1.7)           | 27 (1.7)         |
| Not reported and unknown                  | 35 (8.5)          | 111 (9.7)          | 146 (9.4)        |

Table 2.1: Table 1. Demographic (continued)

| Characteristics          | Placebo (N = 425) | Vaccine (N = 1180) | Total (N = 1605) |
|--------------------------|-------------------|--------------------|------------------|
| Other                    | 14 (3.4)          | 38 (3.3)           | 52 (3.3)         |
| White                    | 24 (5.8)          | 57 (5.0)           | 81 (5.2)         |
| White Non-Hispanic       | 178 (43.2)        | 502 (43.8)         | 680 (43.7)       |
| Risk for Severe Covid-19 |                   |                    |                  |
| At-risk                  | 198 (46.6)        | 589 (49.9)         | 787 (49.0)       |
| Not at-risk              | 227 (53.4)        | 591 (50.1)         | 818 (51.0)       |

This table summarises the case-cohort, which measures antibody markers at (Day 1, Day 29, and Day 57).

### 2.0.2 Table 2. Responder rates

Table 2.2: Table 2a. Responder rates by All participants

| Group            | Baseline | Visit  | N    | Endpoint                     | Responder                  |
|------------------|----------|--------|------|------------------------------|----------------------------|
| All participants |          |        |      |                              |                            |
| All participants | Negative | Day 29 | 1062 | Binding Antibody to RBD      | 51.4%<br>(50.8%, 52.0%)    |
|                  |          |        |      | Binding Antibody to Spike    | 51.4%<br>(50.8%, 52.0%)    |
|                  |          |        |      | PsV Neutralization 50% Titer | 33.8%<br>(28.6%, 39.1%)    |
|                  |          |        |      | PsV Neutralization 80% Titer | 41.0%<br>(37.7%, 44.4%)    |
|                  |          | Day 57 | 1062 | Binding Antibody to RBD      | 51.4%<br>(50.8%, 52.0%)    |
|                  |          |        |      | Binding Antibody to Spike    | 51.4%<br>(50.8%, 52.0%)    |
|                  |          |        |      | PsV Neutralization 50% Titer | 49.1%<br>(48.1%, 50.0%)    |
|                  |          |        |      | PsV Neutralization 80% Titer | 50.0%<br>(49.5%, 50.5%)    |
| Positive         | Positive | Day 29 | 543  | Binding Antibody to RBD      | 100.0%<br>(100.0%, 100.0%) |
|                  |          |        |      | Binding Antibody to Spike    | 100.0%<br>(100.0%, 100.0%) |
|                  |          |        |      | PsV Neutralization 50% Titer | 64.0%<br>(51.6%, 76.4%)    |
|                  |          |        |      | PsV Neutralization 80% Titer | 82.1%                      |

Table 2.2: Table 2a. Responder rates by All participants (continued)

| Group | Baseline | Visit | N | Endpoint                     | Responder        | 2-Fold   |
|-------|----------|-------|---|------------------------------|------------------|----------|
|       |          |       |   |                              | (77.3%, 87.0%)   | (77.3%)  |
|       | Day 57   | 543   |   | Binding Antibody to RBD      | 100.0%           | 100.0%   |
|       |          |       |   |                              | (100.0%, 100.0%) | (100.0%) |
|       |          |       |   | Binding Antibody to Spike    | 100.0%           | 100.0%   |
|       |          |       |   |                              | (100.0%, 100.0%) | (100.0%) |
|       |          |       |   | PsV Neutralization 50% Titer | 90.2%            | 90.2%    |
|       |          |       |   |                              | (85.2%, 95.2%)   | (85.2%)  |
|       |          |       |   | PsV Neutralization 80% Titer | 98.1%            | 98.1%    |
|       |          |       |   |                              | (97.8%, 98.4%)   | (97.8%)  |

Neutralization Responders are defined as participants who had baseline values below the lower limit of quantification neutralization titer above the assay LLOQ, or as participants with baseline values above the LLOQ with a 4-fold increase.

Binding Antibody Responders are defined as participants who had baseline values below the LLOQ with detectable antibody LLOQ, or as participants with baseline values above the LLOQ with a 4-fold increase in antibody concentration.

bAb LLOQ = 34; nAb ID50 LLOQ = 49; nAb ID80 LLOQ = 43

All calculations were weighted by the inverse probability sampling (IPS), defined based on the subcohort sampling strata.

Table 2.3: Table 2b. Responder rates by Age

| Group         | Baseline | Visit  | N   | Endpoint                     | Responder                  |
|---------------|----------|--------|-----|------------------------------|----------------------------|
| Age $\leq$ 65 |          |        |     |                              |                            |
|               | Negative | Day 29 | 513 | Binding Antibody to RBD      | 51.6%<br>(51.5%, 51.8%)    |
|               |          |        |     | Binding Antibody to Spike    | 51.6%<br>(51.5%, 51.8%)    |
|               |          |        |     | PsV Neutralization 50% Titer | 31.5%<br>(29.5%, 33.6%)    |
|               |          |        |     | PsV Neutralization 80% Titer | 39.6%<br>(37.9%, 41.3%)    |
|               |          | Day 57 | 513 | Binding Antibody to RBD      | 51.6%<br>(51.5%, 51.8%)    |
|               |          |        |     | Binding Antibody to Spike    | 51.6%<br>(51.5%, 51.8%)    |
|               |          |        |     | PsV Neutralization 50% Titer | 49.1%<br>(47.9%, 50.3%)    |
|               |          |        |     | PsV Neutralization 80% Titer | 50.0%<br>(49.5%, 50.6%)    |
|               | Positive | Day 29 | 294 | Binding Antibody to RBD      | 100.0%<br>(100.0%, 100.0%) |
|               |          |        |     | Binding Antibody to Spike    | 100.0%<br>(100.0%, 100.0%) |
|               |          |        |     | PsV Neutralization 50% Titer | 59.3%<br>(57.1%, 61.4%)    |
|               |          |        |     | PsV Neutralization 80% Titer | 80.2%<br>(76.4%, 83.9%)    |
|               |          | Day 57 | 294 | Binding Antibody to RBD      | 100.0%<br>(100.0%, 100.0%) |
|               |          |        |     | Binding Antibody to Spike    | 100.0%<br>(100.0%, 100.0%) |
|               |          |        |     | PsV Neutralization 50% Titer | 88.5%<br>(86.7%, 90.2%)    |
|               |          |        |     | PsV Neutralization 80% Titer | 98.0%<br>(97.9%, 98.0%)    |
| Age $>=$ 65   |          |        |     |                              |                            |
|               | Negative | Day 29 | 549 | Binding Antibody to RBD      | 50.5%<br>(50.5%, 50.5%)    |
|               |          |        |     | Binding Antibody to Spike    | 50.5%<br>(50.5%, 50.5%)    |
|               |          |        |     | PsV Neutralization 50% Titer | 42.1%<br>(42.1%, 42.1%)    |
|               |          |        |     | PsV Neutralization 80% Titer | 46.3%<br>(46.3%, 46.3%)    |
|               |          | Day 57 | 549 | Binding Antibody to RBD      | 50.5%                      |

Table 2.3: Table 2b. Responder rates by Age (continued)

| Group    | Baseline | Visit | N   | Endpoint                     | Responder        | 2-Fold   |
|----------|----------|-------|-----|------------------------------|------------------|----------|
| Positive | Day 29   | 249   | 249 | Binding Antibody to Spike    | (50.5%, 50.5%)   | (50.5%)  |
|          |          |       |     | PsV Neutralization 50% Titer | 50.5%            | 50.5%    |
|          |          |       |     | PsV Neutralization 80% Titer | (50.5%, 50.5%)   | (50.5%)  |
|          |          |       |     | Binding Antibody to RBD      | 48.9%            | 48.9%    |
|          |          |       |     | Binding Antibody to Spike    | (48.9%, 48.9%)   | (48.9%)  |
|          | Day 57   | 249   | 249 | PsV Neutralization 50% Titer | 50.0%            | 50.0%    |
|          |          |       |     | PsV Neutralization 80% Titer | (50.0%, 50.0%)   | (50.0%)  |
|          |          |       |     | Binding Antibody to RBD      | 100.0%           | 100.0%   |
|          |          |       |     | Binding Antibody to Spike    | (100.0%, 100.0%) | (100.0%) |
|          |          |       |     | PsV Neutralization 50% Titer | 83.1%            | 83.1%    |
|          |          |       |     | PsV Neutralization 80% Titer | (83.1%, 83.1%)   | (83.1%)  |
|          |          |       |     | Binding Antibody to RBD      | 90.1%            | 90.1%    |
|          |          |       |     | Binding Antibody to Spike    | (90.1%, 90.1%)   | (90.1%)  |
|          |          |       |     | PsV Neutralization 50% Titer | 100.0%           | 100.0%   |
|          |          |       |     | PsV Neutralization 80% Titer | (100.0%, 100.0%) | (100.0%) |

Neutralization Responders are defined as participants who had baseline values below the lower limit of quantification (LLOQ) or as participants with baseline values above the LLOQ with a 4-fold increase in antibody concentration.

Binding Antibody Responders are defined as participants who had baseline values below the LLOQ with detectable antibody concentration or as participants with baseline values above the LLOQ with a 4-fold increase in antibody concentration.

bAb LLOQ = 34; nAb ID50 LLOQ = 49; nAb ID80 LLOQ = 43

All calculations were weighted by the inverse probability sampling (IPS), defined based on the subcohort sampling strata.

Table 2.4: Table 2c. Responder rates by Risk for Severe Covid-19

| Group                    | Baseline | Visit  | N   | Endpoint                     | Responder                  |
|--------------------------|----------|--------|-----|------------------------------|----------------------------|
| Risk for Severe Covid-19 |          |        |     |                              |                            |
| At-risk                  | Negative | Day 29 | 541 | Binding Antibody to RBD      | 52.0%<br>(50.8%, 53.1%)    |
|                          |          |        |     | Binding Antibody to Spike    | 52.0%<br>(50.8%, 53.1%)    |
|                          |          |        |     | PsV Neutralization 50% Titer | 33.9%<br>(23.1%, 44.7%)    |
|                          |          |        |     | PsV Neutralization 80% Titer | 40.9%<br>(33.4%, 48.5%)    |
|                          |          | Day 57 | 541 | Binding Antibody to RBD      | 52.0%<br>(50.8%, 53.1%)    |
|                          |          |        |     | Binding Antibody to Spike    | 52.0%<br>(50.8%, 53.1%)    |
|                          |          |        |     | PsV Neutralization 50% Titer | 48.7%<br>(46.2%, 51.2%)    |
|                          |          |        |     | PsV Neutralization 80% Titer | 50.6%<br>(47.7%, 53.6%)    |
| Positive                 | Negative | Day 29 | 246 | Binding Antibody to RBD      | 100.0%<br>(100.0%, 100.0%) |
|                          |          |        |     | Binding Antibody to Spike    | 100.0%<br>(100.0%, 100.0%) |
|                          |          |        |     | PsV Neutralization 50% Titer | 68.7%<br>(54.1%, 83.4%)    |
|                          |          |        |     | PsV Neutralization 80% Titer | 78.3%<br>(70.2%, 86.3%)    |
|                          |          | Day 57 | 246 | Binding Antibody to RBD      | 100.0%<br>(100.0%, 100.0%) |
|                          |          |        |     | Binding Antibody to Spike    | 100.0%<br>(100.0%, 100.0%) |
|                          |          |        |     | PsV Neutralization 50% Titer | 92.2%<br>(89.3%, 95.1%)    |
|                          |          |        |     | PsV Neutralization 80% Titer | 97.7%<br>(96.8%, 98.5%)    |
| Not at-risk              | Negative | Day 29 | 521 | Binding Antibody to RBD      | 51.2%<br>(49.7%, 52.7%)    |
|                          |          |        |     | Binding Antibody to Spike    | 51.2%<br>(49.7%, 52.7%)    |
|                          |          |        |     | PsV Neutralization 50% Titer | 33.8%<br>(29.5%, 38.1%)    |
|                          |          |        |     | PsV Neutralization 80% Titer | 41.1%<br>(38.6%, 43.6%)    |
|                          |          | Day 57 | 521 | Binding Antibody to RBD      | 51.2%                      |

Table 2.4: Table 2c. Responder rates by Risk for Severe Covid-19 (continued)

| Group    | Baseline | Visit | N | Endpoint                     | Responder        | 2-Fold   |
|----------|----------|-------|---|------------------------------|------------------|----------|
| Positive | Day 29   | 297   |   | Binding Antibody to Spike    | (49.7%, 52.7%)   | (49.7%)  |
|          |          |       |   | PsV Neutralization 50% Titer | 51.2%            | 51.2%    |
|          |          |       |   | PsV Neutralization 80% Titer | (49.7%, 52.7%)   | (49.7%)  |
|          |          |       |   | Binding Antibody to RBD      | 49.2%            | 49.2%    |
|          |          |       |   | Binding Antibody to Spike    | (48.2%, 50.2%)   | (48.2%)  |
|          | Day 57   | 297   |   | PsV Neutralization 80% Titer | 49.8%            | 49.8%    |
|          |          |       |   | Binding Antibody to RBD      | (48.5%, 51.1%)   | (48.5%)  |
|          |          |       |   | Binding Antibody to Spike    | 100.0%           | 100.0%   |
|          |          |       |   | PsV Neutralization 50% Titer | (100.0%, 100.0%) | (100.0%) |
|          |          |       |   | PsV Neutralization 80% Titer | 62.5%            | 62.5%    |
|          |          |       |   | Binding Antibody to Spike    | (51.1%, 73.9%)   | (51.1%)  |
|          |          |       |   | PsV Neutralization 80% Titer | 83.4%            | 83.4%    |
|          |          |       |   | Binding Antibody to RBD      | (78.2%, 88.6%)   | (78.2%)  |
|          |          |       |   | Binding Antibody to Spike    | 100.0%           | 100.0%   |
|          |          |       |   | PsV Neutralization 50% Titer | (100.0%, 100.0%) | (100.0%) |
|          |          |       |   | PsV Neutralization 80% Titer | 89.6%            | 89.6%    |
|          |          |       |   | Binding Antibody to Spike    | (84.5%, 94.6%)   | (84.5%)  |
|          |          |       |   | PsV Neutralization 80% Titer | 98.2%            | 98.2%    |
|          |          |       |   | Binding Antibody to RBD      | (97.4%, 99.0%)   | (97.4%)  |

Neutralization Responders are defined as participants who had baseline values below the lower limit of quantification (LLOQ) or as participants with baseline values above the LLOQ with a 4-fold increase in antibody concentration.

Binding Antibody Responders are defined as participants who had baseline values below the LLOQ with detectable antibody concentration or as participants with baseline values above the LLOQ with a 4-fold increase in antibody concentration.

bAb LLOQ = 34; nAb ID50 LLOQ = 49; nAb ID80 LLOQ = 43

All calculations were weighted by the inverse probability sampling (IPS), defined based on the subcohort sampling strata.

Table 2.5: Table 2d. Responder rates by Age, Risk for Severe Covid-19

| Group                         | Baseline | Visit  | N   | Endpoint                     | Responder                  |
|-------------------------------|----------|--------|-----|------------------------------|----------------------------|
| Age, Risk for Severe Covid-19 |          |        |     |                              |                            |
| Age $\geq$ 65 At-risk         | Negative | Day 29 | 257 | Binding Antibody to RBD      | 51.4%<br>(51.4%, 51.4%)    |
|                               |          |        |     | Binding Antibody to Spike    | 51.4%<br>(51.4%, 51.4%)    |
|                               |          |        |     | PsV Neutralization 50% Titer | 28.7%<br>(28.7%, 28.7%)    |
|                               |          |        |     | PsV Neutralization 80% Titer | 37.3%<br>(37.3%, 37.3%)    |
|                               |          | Day 57 | 257 | Binding Antibody to RBD      | 51.4%<br>(51.4%, 51.4%)    |
|                               |          |        |     | Binding Antibody to Spike    | 51.4%<br>(51.4%, 51.4%)    |
|                               |          |        |     | PsV Neutralization 50% Titer | 47.5%<br>(47.5%, 47.5%)    |
|                               |          |        |     | PsV Neutralization 80% Titer | 49.2%<br>(49.2%, 49.2%)    |
| Positive                      | Day 29   | 148    |     | Binding Antibody to RBD      | 100.0%<br>(100.0%, 100.0%) |
|                               |          |        |     | Binding Antibody to Spike    | 100.0%<br>(100.0%, 100.0%) |
|                               |          |        |     | PsV Neutralization 50% Titer | 62.4%<br>(62.4%, 62.4%)    |
|                               |          |        |     | PsV Neutralization 80% Titer | 74.7%<br>(74.7%, 74.7%)    |
|                               |          | Day 57 | 148 | Binding Antibody to RBD      | 100.0%<br>(100.0%, 100.0%) |
|                               |          |        |     | Binding Antibody to Spike    | 100.0%<br>(100.0%, 100.0%) |
|                               |          |        |     | PsV Neutralization 50% Titer | 91.0%<br>(91.0%, 91.0%)    |
|                               |          |        |     | PsV Neutralization 80% Titer | 98.0%<br>(98.0%, 98.0%)    |
| Age $\geq$ 65 Not at-risk     | Negative | Day 29 | 256 | Binding Antibody to RBD      | 51.7%<br>(51.7%, 51.7%)    |
|                               |          |        |     | Binding Antibody to Spike    | 51.7%<br>(51.7%, 51.7%)    |
|                               |          |        |     | PsV Neutralization 50% Titer | 32.3%<br>(32.3%, 32.3%)    |
|                               |          |        |     | PsV Neutralization 80% Titer | 40.2%<br>(40.2%, 40.2%)    |
|                               |          | Day 57 | 256 | Binding Antibody to RBD      | 51.7%                      |

Table 2.5: Table 2d. Responder rates by Age, Risk for Severe Covid-19 (continued)

| Group                 | Baseline | Visit | N | Endpoint                     | Responder        | 2-Fold  |
|-----------------------|----------|-------|---|------------------------------|------------------|---------|
| Positive              | Day 29   | 146   |   | Binding Antibody to Spike    | (51.7%, 51.7%)   | (51.7%  |
|                       |          |       |   | PsV Neutralization 50% Titer | 51.7%            | 51.7%   |
|                       |          |       |   | PsV Neutralization 80% Titer | (51.7%, 51.7%)   | (51.7%  |
|                       |          |       |   | Binding Antibody to RBD      | 49.5%            | 49.5%   |
|                       |          |       |   | Binding Antibody to Spike    | (49.5%, 49.5%)   | (49.5%  |
|                       | Day 57   | 146   |   | PsV Neutralization 80% Titer | 50.3%            | 50.3%   |
|                       |          |       |   | Binding Antibody to RBD      | (50.3%, 50.3%)   | (50.3%  |
|                       |          |       |   | Binding Antibody to Spike    | 100.0%           | 100.0%  |
|                       |          |       |   | PsV Neutralization 50% Titer | (100.0%, 100.0%) | (100.0% |
|                       |          |       |   | PsV Neutralization 80% Titer | 58.5%            | 58.5%   |
| Age $\geq 65$ At-risk | Day 29   | 284   |   | PsV Neutralization 80% Titer | (58.5%, 58.5%)   | (58.5%  |
|                       |          |       |   | Binding Antibody to RBD      | 81.6%            | 81.6%   |
|                       |          |       |   | Binding Antibody to Spike    | (81.6%, 81.6%)   | (81.6%  |
|                       |          |       |   | PsV Neutralization 50% Titer | 100.0%           | 100.0%  |
|                       |          |       |   | PsV Neutralization 80% Titer | (100.0%, 100.0%) | (100.0% |
|                       | Day 57   | 284   |   | Binding Antibody to Spike    | 100.0%           | 100.0%  |
|                       |          |       |   | PsV Neutralization 50% Titer | (100.0%, 100.0%) | (100.0% |
|                       |          |       |   | PsV Neutralization 80% Titer | 87.8%            | 87.8%   |
|                       |          |       |   | Binding Antibody to RBD      | (87.8%, 87.8%)   | (87.8%  |
|                       |          |       |   | Binding Antibody to Spike    | 98.0%            | 98.0%   |
|                       | Positive | 98    |   | PsV Neutralization 80% Titer | (98.0%, 98.0%)   | (98.0%  |
|                       |          |       |   | Binding Antibody to RBD      | 52.8%            | 52.8%   |
|                       |          |       |   | Binding Antibody to Spike    | (52.8%, 52.8%)   | (52.8%  |
|                       |          |       |   | PsV Neutralization 50% Titer | 52.8%            | 52.8%   |
|                       |          |       |   | PsV Neutralization 80% Titer | (52.8%, 52.8%)   | (52.8%  |
|                       | Day 29   | 98    |   | PsV Neutralization 80% Titer | 42.1%            | 42.1%   |
|                       |          |       |   | Binding Antibody to RBD      | (42.1%, 42.1%)   | (42.1%  |
|                       |          |       |   | Binding Antibody to Spike    | 46.6%            | 46.6%   |
|                       |          |       |   | PsV Neutralization 50% Titer | (46.6%, 46.6%)   | (46.6%  |
|                       |          |       |   | PsV Neutralization 80% Titer | 52.8%            | 52.8%   |
|                       | Day 57   | 284   |   | PsV Neutralization 80% Titer | (52.8%, 52.8%)   | (52.8%  |
|                       |          |       |   | Binding Antibody to RBD      | 52.8%            | 52.8%   |
|                       |          |       |   | Binding Antibody to Spike    | (52.8%, 52.8%)   | (52.8%  |
|                       |          |       |   | PsV Neutralization 50% Titer | 50.6%            | 50.6%   |
|                       |          |       |   | PsV Neutralization 80% Titer | (50.6%, 50.6%)   | (50.6%  |
|                       | Negative | 284   |   | PsV Neutralization 80% Titer | 52.8%            | 52.8%   |
|                       |          |       |   | Binding Antibody to RBD      | (52.8%, 52.8%)   | (52.8%  |
|                       |          |       |   | Binding Antibody to Spike    | 42.1%            | 42.1%   |
|                       |          |       |   | PsV Neutralization 50% Titer | (42.1%, 42.1%)   | (42.1%  |
|                       |          |       |   | PsV Neutralization 80% Titer | 46.6%            | 46.6%   |
|                       | Day 29   | 284   |   | PsV Neutralization 80% Titer | (46.6%, 46.6%)   | (46.6%  |
|                       |          |       |   | Binding Antibody to RBD      | 52.8%            | 52.8%   |
|                       |          |       |   | Binding Antibody to Spike    | (52.8%, 52.8%)   | (52.8%  |
|                       |          |       |   | PsV Neutralization 50% Titer | 50.6%            | 50.6%   |
|                       |          |       |   | PsV Neutralization 80% Titer | (50.6%, 50.6%)   | (50.6%  |
|                       | Day 57   | 284   |   | PsV Neutralization 80% Titer | 52.8%            | 52.8%   |
|                       |          |       |   | Binding Antibody to RBD      | (52.8%, 52.8%)   | (52.8%  |
|                       |          |       |   | Binding Antibody to Spike    | 52.8%            | 52.8%   |
|                       |          |       |   | PsV Neutralization 50% Titer | (52.8%, 52.8%)   | (52.8%  |
|                       |          |       |   | PsV Neutralization 80% Titer | 50.6%            | 50.6%   |
|                       | Positive | 98    |   | PsV Neutralization 80% Titer | (50.6%, 50.6%)   | (50.6%  |
|                       |          |       |   | Binding Antibody to RBD      | 100.0%           | 100.0%  |
|                       |          |       |   | Binding Antibody to Spike    | (100.0%, 100.0%) | (100.0% |
|                       |          |       |   | PsV Neutralization 50% Titer | 100.0%           | 100.0%  |
|                       |          |       |   | PsV Neutralization 80% Titer | (100.0%, 100.0%) | (100.0% |

Table 2.5: Table 2d. Responder rates by Age, Risk for Severe Covid-19 (contin)

| Group                     | Baseline | Visit  | N   | Endpoint                     | Responder                  |  |
|---------------------------|----------|--------|-----|------------------------------|----------------------------|--|
| Age $\geq 65$ Not at-risk | Negative | Day 29 | 265 | PsV Neutralization 50% Titer | 82.1%<br>(82.1%, 82.1%)    |  |
|                           |          |        |     | PsV Neutralization 80% Titer | 85.6%<br>(85.6%, 85.6%)    |  |
|                           |          | Day 57 | 98  | Binding Antibody to RBD      | 100.0%<br>(100.0%, 100.0%) |  |
|                           |          | Day 29 |     | Binding Antibody to Spike    | 100.0%<br>(100.0%, 100.0%) |  |
|                           |          |        |     | PsV Neutralization 50% Titer | 94.9%<br>(94.9%, 94.9%)    |  |
|                           | Positive | Day 57 | 265 | PsV Neutralization 80% Titer | 96.9%<br>(96.9%, 96.9%)    |  |
|                           |          |        |     | Binding Antibody to RBD      | 48.3%<br>(48.3%, 48.3%)    |  |
|                           |          | Day 29 |     | Binding Antibody to Spike    | 48.3%<br>(48.3%, 48.3%)    |  |
|                           |          |        |     | PsV Neutralization 50% Titer | 42.1%<br>(42.1%, 42.1%)    |  |
|                           |          | Day 57 |     | PsV Neutralization 80% Titer | 45.9%<br>(45.9%, 45.9%)    |  |
|                           |          |        |     | Binding Antibody to RBD      | 48.3%<br>(48.3%, 48.3%)    |  |
|                           |          | Day 29 | 151 | Binding Antibody to Spike    | 48.3%<br>(48.3%, 48.3%)    |  |
|                           |          |        |     | PsV Neutralization 50% Titer | 47.2%<br>(47.2%, 47.2%)    |  |
|                           |          | Day 57 |     | PsV Neutralization 80% Titer | 47.2%<br>(47.2%, 47.2%)    |  |
|                           |          |        |     | Binding Antibody to RBD      | 100.0%<br>(100.0%, 100.0%) |  |
|                           |          | Day 29 |     | Binding Antibody to Spike    | 100.0%<br>(100.0%, 100.0%) |  |
|                           |          |        |     | PsV Neutralization 50% Titer | 83.7%<br>(83.7%, 83.7%)    |  |
|                           |          | Day 57 | 151 | PsV Neutralization 80% Titer | 93.0%<br>(93.0%, 93.0%)    |  |
|                           |          |        |     | Binding Antibody to RBD      | 100.0%<br>(100.0%, 100.0%) |  |
|                           |          | Day 29 |     | Binding Antibody to Spike    | 100.0%<br>(100.0%, 100.0%) |  |
|                           |          |        |     | PsV Neutralization 50% Titer | 99.0%<br>(99.0%, 99.0%)    |  |
|                           |          | Day 57 |     | PsV Neutralization 80% Titer | 99.7%                      |  |

Table 2.5: Table 2d. Responder rates by Age, Risk for Severe Covid-19 (continued)

| Group | Baseline | Visit | N | Endpoint | Responder      | 2-Fold  |
|-------|----------|-------|---|----------|----------------|---------|
|       |          |       |   |          | (99.7%, 99.7%) | (99.7%) |

Neutralization Responders are defined as participants who had baseline values below the lower limit of quantification neutralization titer above the assay LLOQ, or as participants with baseline values above the LLOQ with a 4-fold increase.

Binding Antibody Responders are defined as participants who had baseline values below the LLOQ with detectable antibody concentration above the assay LLOQ, or as participants with baseline values above the LLOQ with a 4-fold increase in antibody concentration.

bAb LLOQ = 34; nAb ID50 LLOQ = 49; nAb ID80 LLOQ = 43

All calculations were weighted by the inverse probability sampling (IPS), defined based on the subcohort sampling strata.

Table 2.6: Table 2e. Responder rates by Sex

| Group  | Baseline | Visit  | N   | Endpoint                     | Responder                  |
|--------|----------|--------|-----|------------------------------|----------------------------|
| Sex    |          |        |     |                              |                            |
| Female |          |        |     |                              |                            |
|        | Negative | Day 29 | 597 | Binding Antibody to RBD      | 51.9%<br>(50.5%, 53.4%)    |
|        |          |        |     | Binding Antibody to Spike    | 51.9%<br>(50.5%, 53.4%)    |
|        |          |        |     | PsV Neutralization 50% Titer | 34.1%<br>(27.7%, 40.5%)    |
|        |          |        |     | PsV Neutralization 80% Titer | 40.9%<br>(35.4%, 46.5%)    |
|        |          | Day 57 | 597 | Binding Antibody to RBD      | 51.9%<br>(50.5%, 53.4%)    |
|        |          |        |     | Binding Antibody to Spike    | 51.9%<br>(50.5%, 53.4%)    |
|        |          |        |     | PsV Neutralization 50% Titer | 49.3%<br>(47.2%, 51.4%)    |
|        |          |        |     | PsV Neutralization 80% Titer | 51.1%<br>(49.6%, 52.6%)    |
|        | Positive | Day 29 | 298 | Binding Antibody to RBD      | 100.0%<br>(100.0%, 100.0%) |
|        |          |        |     | Binding Antibody to Spike    | 100.0%<br>(100.0%, 100.0%) |
|        |          |        |     | PsV Neutralization 50% Titer | 61.3%<br>(48.9%, 73.7%)    |
|        |          |        |     | PsV Neutralization 80% Titer | 82.4%<br>(78.9%, 85.9%)    |
|        |          | Day 57 | 298 | Binding Antibody to RBD      | 100.0%<br>(100.0%, 100.0%) |
|        |          |        |     | Binding Antibody to Spike    | 100.0%<br>(100.0%, 100.0%) |
|        |          |        |     | PsV Neutralization 50% Titer | 89.2%<br>(84.7%, 93.8%)    |
|        |          |        |     | PsV Neutralization 80% Titer | 97.6%<br>(97.0%, 98.3%)    |
| Male   |          |        |     |                              |                            |
|        | Negative | Day 29 | 465 | Binding Antibody to RBD      | 50.7%<br>(48.0%, 53.4%)    |
|        |          |        |     | Binding Antibody to Spike    | 50.7%<br>(48.0%, 53.4%)    |
|        |          |        |     | PsV Neutralization 50% Titer | 33.5%<br>(28.8%, 38.2%)    |
|        |          |        |     | PsV Neutralization 80% Titer | 41.2%<br>(40.6%, 41.7%)    |
|        |          | Day 57 | 465 | Binding Antibody to RBD      | 50.7%                      |

Table 2.6: Table 2e. Responder rates by Sex (continued)

| Group    | Baseline | Visit | N | Endpoint                     | Responder        | 2-Fold   |
|----------|----------|-------|---|------------------------------|------------------|----------|
| Positive | Day 29   | 245   |   | Binding Antibody to Spike    | (48.0%, 53.4%)   | (48.0%)  |
|          |          |       |   | PsV Neutralization 50% Titer | 50.7%            | 50.7%    |
|          |          |       |   | PsV Neutralization 80% Titer | (48.0%, 53.4%)   | (48.0%)  |
|          |          |       |   | Binding Antibody to RBD      | 48.7%            | 48.7%    |
|          |          |       |   | Binding Antibody to Spike    | (46.3%, 51.2%)   | (46.3%)  |
|          | Day 57   | 245   |   | PsV Neutralization 80% Titer | 48.7%            | 48.7%    |
|          |          |       |   | Binding Antibody to RBD      | (47.1%, 50.2%)   | (47.1%)  |
|          |          |       |   | Binding Antibody to Spike    | 100.0%           | 100.0%   |
|          |          |       |   | PsV Neutralization 50% Titer | (100.0%, 100.0%) | (100.0%) |
|          |          |       |   | PsV Neutralization 80% Titer | 67.5%            | 67.5%    |
|          |          |       |   | Binding Antibody to Spike    | (55.6%, 79.4%)   | (55.6%)  |
|          |          |       |   | PsV Neutralization 80% Titer | 81.8%            | 81.8%    |
|          |          |       |   | Binding Antibody to RBD      | (74.9%, 88.7%)   | (74.9%)  |
|          |          |       |   | Binding Antibody to Spike    | 100.0%           | 100.0%   |
|          |          |       |   | PsV Neutralization 50% Titer | (100.0%, 100.0%) | (100.0%) |
|          |          |       |   | PsV Neutralization 80% Titer | 91.5%            | 91.5%    |
|          |          |       |   | Binding Antibody to RBD      | (85.8%, 97.3%)   | (85.8%)  |
|          |          |       |   | Binding Antibody to Spike    | 98.7%            | 98.7%    |
|          |          |       |   | PsV Neutralization 80% Titer | (97.9%, 99.5%)   | (97.9%)  |

Neutralization Responders are defined as participants who had baseline values below the lower limit of quantification (LLOQ) or as participants with baseline values above the LLOQ with a 4-fold increase in neutralization titer above the assay LLOQ, or as participants with baseline values above the LLOQ with a 4-fold increase in antibody concentration.

Binding Antibody Responders are defined as participants who had baseline values below the LLOQ with detectable antibody concentration or as participants with baseline values above the LLOQ with a 4-fold increase in antibody concentration.

bAb LLOQ = 34; nAb ID50 LLOQ = 49; nAb ID80 LLOQ = 43

All calculations were weighted by the inverse probability sampling (IPS), defined based on the subcohort sampling strata.

Table 2.7: Table 2f. Responder rates by Age, sex

| Group                | Baseline | Visit  | N   | Endpoint                     | Responder                  |
|----------------------|----------|--------|-----|------------------------------|----------------------------|
| Age, sex             |          |        |     |                              |                            |
| Age $\geq$ 65 Female | Negative | Day 29 | 291 | Binding Antibody to RBD      | 51.4%<br>(49.8%, 53.0%)    |
|                      |          |        |     | Binding Antibody to Spike    | 51.4%<br>(49.8%, 53.0%)    |
|                      |          |        |     | PsV Neutralization 50% Titer | 31.4%<br>(27.0%, 35.9%)    |
|                      |          |        |     | PsV Neutralization 80% Titer | 38.6%<br>(35.9%, 41.2%)    |
|                      |          | Day 57 | 291 | Binding Antibody to RBD      | 51.4%<br>(49.8%, 53.0%)    |
|                      |          |        |     | Binding Antibody to Spike    | 51.4%<br>(49.8%, 53.0%)    |
|                      |          |        |     | PsV Neutralization 50% Titer | 48.6%<br>(46.3%, 50.9%)    |
|                      |          |        |     | PsV Neutralization 80% Titer | 50.6%<br>(49.0%, 52.2%)    |
| Positive             | Day 29   | 166    |     | Binding Antibody to RBD      | 100.0%<br>(100.0%, 100.0%) |
|                      |          |        |     | Binding Antibody to Spike    | 100.0%<br>(100.0%, 100.0%) |
|                      |          |        |     | PsV Neutralization 50% Titer | 56.7%<br>(54.9%, 58.4%)    |
|                      |          |        |     | PsV Neutralization 80% Titer | 81.2%<br>(77.5%, 84.8%)    |
|                      |          | Day 57 | 166 | Binding Antibody to RBD      | 100.0%<br>(100.0%, 100.0%) |
|                      |          |        |     | Binding Antibody to Spike    | 100.0%<br>(100.0%, 100.0%) |
|                      |          |        |     | PsV Neutralization 50% Titer | 87.5%<br>(87.2%, 87.7%)    |
|                      |          |        |     | PsV Neutralization 80% Titer | 97.5%<br>(96.7%, 98.2%)    |
| Age $\geq$ 65 Male   | Negative | Day 29 | 222 | Binding Antibody to RBD      | 51.9%<br>(50.2%, 53.7%)    |
|                      |          |        |     | Binding Antibody to Spike    | 51.9%<br>(50.2%, 53.7%)    |
|                      |          |        |     | PsV Neutralization 50% Titer | 31.7%<br>(30.6%, 32.8%)    |
|                      |          |        |     | PsV Neutralization 80% Titer | 40.9%<br>(40.7%, 41.2%)    |
|                      |          | Day 57 | 222 | Binding Antibody to RBD      | 51.9%                      |

Table 2.7: Table 2f. Responder rates by Age, sex (continued)

| Group                | Baseline | Visit | N | Endpoint                     | Responder        | 2-Fold   |
|----------------------|----------|-------|---|------------------------------|------------------|----------|
| Positive             | Day 29   | 128   |   | Binding Antibody to Spike    | (50.2%, 53.7%)   | (50.2%)  |
|                      |          |       |   | PsV Neutralization 50% Titer | 51.9%            | 51.9%    |
|                      |          |       |   | PsV Neutralization 80% Titer | (50.2%, 53.7%)   | (50.2%)  |
|                      |          |       |   | Binding Antibody to RBD      | 49.8%            | 49.8%    |
|                      |          |       |   | Binding Antibody to Spike    | (49.4%, 50.2%)   | (49.4%)  |
|                      | Day 57   | 128   |   | PsV Neutralization 80% Titer | 49.4%            | 49.4%    |
|                      |          |       |   | Binding Antibody to RBD      | (48.7%, 50.0%)   | (48.7%)  |
|                      |          |       |   | Binding Antibody to Spike    | 100.0%           | 100.0%   |
|                      |          |       |   | PsV Neutralization 50% Titer | (100.0%, 100.0%) | (100.0%) |
|                      |          |       |   | PsV Neutralization 80% Titer | 62.9%            | 62.9%    |
| Age $\geq$ 65 Female | Day 29   | 306   |   | PsV Neutralization 80% Titer | (60.6%, 65.1%)   | (60.6%)  |
|                      |          |       |   | Binding Antibody to RBD      | 78.8%            | 78.8%    |
|                      |          |       |   | Binding Antibody to Spike    | (75.1%, 82.5%)   | (75.1%)  |
|                      |          |       |   | PsV Neutralization 50% Titer | 100.0%           | 100.0%   |
|                      |          |       |   | PsV Neutralization 80% Titer | (100.0%, 100.0%) | (100.0%) |
|                      | Day 57   | 306   |   | Binding Antibody to Spike    | 100.0%           | 100.0%   |
|                      |          |       |   | PsV Neutralization 50% Titer | 89.8%            | 89.8%    |
|                      |          |       |   | PsV Neutralization 80% Titer | (86.2%, 93.4%)   | (86.2%)  |
|                      |          |       |   | Binding Antibody to RBD      | 98.7%            | 98.7%    |
|                      |          |       |   | Binding Antibody to Spike    | (97.7%, 99.7%)   | (97.7%)  |
| Positive             | Day 29   | 132   |   | Binding Antibody to RBD      | 53.8%            | 53.8%    |
|                      |          |       |   | Binding Antibody to Spike    | (53.8%, 53.8%)   | (53.8%)  |
|                      |          |       |   | PsV Neutralization 50% Titer | 53.8%            | 53.8%    |
|                      |          |       |   | PsV Neutralization 80% Titer | (53.8%, 53.8%)   | (53.8%)  |
|                      |          |       |   | Binding Antibody to RBD      | 44.3%            | 44.3%    |
|                      | Day 57   | 306   |   | Binding Antibody to Spike    | (44.3%, 44.3%)   | (44.3%)  |
|                      |          |       |   | PsV Neutralization 50% Titer | 50.1%            | 50.1%    |
|                      |          |       |   | PsV Neutralization 80% Titer | (50.1%, 50.1%)   | (50.1%)  |
|                      |          |       |   | Binding Antibody to Spike    | 53.8%            | 53.8%    |
|                      |          |       |   | PsV Neutralization 50% Titer | (53.8%, 53.8%)   | (53.8%)  |
| Negative             | Day 29   | 306   |   | PsV Neutralization 80% Titer | 53.8%            | 53.8%    |
|                      |          |       |   | Binding Antibody to RBD      | (53.8%, 53.8%)   | (53.8%)  |
|                      |          |       |   | Binding Antibody to Spike    | 52.1%            | 52.1%    |
|                      |          |       |   | PsV Neutralization 50% Titer | (52.1%, 52.1%)   | (52.1%)  |
| Positive             | Day 29   | 132   |   | PsV Neutralization 80% Titer | 53.2%            | 53.2%    |
|                      |          |       |   | Binding Antibody to RBD      | (53.2%, 53.2%)   | (53.2%)  |
|                      |          |       |   | Binding Antibody to Spike    | 100.0%           | 100.0%   |
|                      |          |       |   | PsV Neutralization 50% Titer | (100.0%, 100.0%) | (100.0%) |

Table 2.7: Table 2f. Responder rates by Age, sex (continued)

| Group              | Baseline | Visit  | N   | Endpoint                     | Responder                  |  |
|--------------------|----------|--------|-----|------------------------------|----------------------------|--|
| Age $\geq$ 65 Male | Negative | Day 29 | 243 | PsV Neutralization 50% Titer | 81.8%<br>(81.8%, 81.8%)    |  |
|                    |          |        |     | PsV Neutralization 80% Titer | 87.9%<br>(87.9%, 87.9%)    |  |
|                    |          | Day 57 | 132 | Binding Antibody to RBD      | 100.0%<br>(100.0%, 100.0%) |  |
|                    |          | Day 29 |     | Binding Antibody to Spike    | 100.0%<br>(100.0%, 100.0%) |  |
|                    |          |        |     | PsV Neutralization 50% Titer | 97.0%<br>(97.0%, 97.0%)    |  |
|                    | Positive | Day 57 | 243 | PsV Neutralization 80% Titer | 98.5%<br>(98.5%, 98.5%)    |  |
|                    |          |        |     | Binding Antibody to RBD      | 46.8%<br>(46.8%, 46.8%)    |  |
|                    |          | Day 29 |     | Binding Antibody to Spike    | 46.8%<br>(46.8%, 46.8%)    |  |
|                    |          |        |     | PsV Neutralization 50% Titer | 39.6%<br>(39.6%, 39.6%)    |  |
|                    |          | Day 57 |     | PsV Neutralization 80% Titer | 42.0%<br>(42.0%, 42.0%)    |  |
|                    |          |        |     | Binding Antibody to RBD      | 46.8%<br>(46.8%, 46.8%)    |  |
|                    |          | Day 29 | 117 | Binding Antibody to Spike    | 46.8%<br>(46.8%, 46.8%)    |  |
|                    |          |        |     | PsV Neutralization 50% Titer | 45.2%<br>(45.2%, 45.2%)    |  |
|                    | Positive | Day 57 | 117 | PsV Neutralization 80% Titer | 46.3%<br>(46.3%, 46.3%)    |  |
|                    |          |        |     | Binding Antibody to RBD      | 100.0%<br>(100.0%, 100.0%) |  |
|                    |          |        |     | Binding Antibody to Spike    | 100.0%<br>(100.0%, 100.0%) |  |
|                    |          |        |     | PsV Neutralization 50% Titer | 84.5%<br>(84.5%, 84.5%)    |  |
|                    |          |        |     | PsV Neutralization 80% Titer | 92.7%<br>(92.7%, 92.7%)    |  |
|                    |          | Day 29 | 117 | Binding Antibody to RBD      | 100.0%<br>(100.0%, 100.0%) |  |
|                    |          |        |     | Binding Antibody to Spike    | 100.0%<br>(100.0%, 100.0%) |  |
|                    |          |        |     | PsV Neutralization 50% Titer | 97.9%<br>(97.9%, 97.9%)    |  |
|                    |          |        |     | PsV Neutralization 80% Titer | 98.7%                      |  |

Table 2.7: Table 2f. Responder rates by Age, sex (continued)

| Group | Baseline | Visit | N | Endpoint | Responder      | 2-Fold  |
|-------|----------|-------|---|----------|----------------|---------|
|       |          |       |   |          | (98.7%, 98.7%) | (98.7%) |

Neutralization Responders are defined as participants who had baseline values below the lower limit of quantification neutralization titer above the assay LLOQ, or as participants with baseline values above the LLOQ with a 4-fold increase.

Binding Antibody Responders are defined as participants who had baseline values below the LLOQ with detectable antibody concentration above the assay LLOQ, or as participants with baseline values above the LLOQ with a 4-fold increase in antibody concentration.

bAb LLOQ = 34; nAb ID50 LLOQ = 49; nAb ID80 LLOQ = 43

All calculations were weighted by the inverse probability sampling (IPS), defined based on the subcohort sampling strata.

Table 2.8: Table 2g. Responder rates by Hispanic or Latino ethnicity

| Group                        | Baseline | Visit  | N   | Endpoint                     | Responder                  |
|------------------------------|----------|--------|-----|------------------------------|----------------------------|
| Hispanic or Latino ethnicity |          |        |     |                              |                            |
| Hispanic or Latino           |          |        |     |                              |                            |
| Negative                     | Day 29   | 125    |     | Binding Antibody to RBD      | 46.0%<br>(35.7%, 56.4%)    |
|                              |          |        |     | Binding Antibody to Spike    | 46.0%<br>(35.7%, 56.4%)    |
|                              |          |        |     | PsV Neutralization 50% Titer | 25.9%<br>(10.8%, 41.0%)    |
|                              |          |        |     | PsV Neutralization 80% Titer | 37.0%<br>(26.9%, 47.0%)    |
|                              | Day 57   | 125    |     | Binding Antibody to RBD      | 46.0%<br>(35.7%, 56.4%)    |
|                              |          |        |     | Binding Antibody to Spike    | 46.0%<br>(35.7%, 56.4%)    |
|                              |          |        |     | PsV Neutralization 50% Titer | 45.1%<br>(36.2%, 53.9%)    |
|                              |          |        |     | PsV Neutralization 80% Titer | 42.4%<br>(30.9%, 54.0%)    |
| Positive                     | Day 29   | 77     |     | Binding Antibody to RBD      | 100.0%<br>(100.0%, 100.0%) |
|                              |          |        |     | Binding Antibody to Spike    | 100.0%<br>(100.0%, 100.0%) |
|                              |          |        |     | PsV Neutralization 50% Titer | 61.0%<br>(53.6%, 68.3%)    |
|                              |          |        |     | PsV Neutralization 80% Titer | 81.2%<br>(74.3%, 88.1%)    |
|                              | Day 57   | 77     |     | Binding Antibody to RBD      | 100.0%<br>(100.0%, 100.0%) |
|                              |          |        |     | Binding Antibody to Spike    | 100.0%<br>(100.0%, 100.0%) |
|                              |          |        |     | PsV Neutralization 50% Titer | 89.2%<br>(86.4%, 91.9%)    |
|                              |          |        |     | PsV Neutralization 80% Titer | 96.3%<br>(94.5%, 98.2%)    |
| Not Hispanic or Latino       | Negative | Day 29 | 844 | Binding Antibody to RBD      | 53.4%<br>(49.3%, 57.5%)    |
|                              |          |        |     | Binding Antibody to Spike    | 53.4%<br>(49.3%, 57.5%)    |
|                              |          |        |     | PsV Neutralization 50% Titer | 35.7%<br>(30.0%, 41.4%)    |
|                              |          |        |     | PsV Neutralization 80% Titer | 42.8%<br>(38.0%, 47.7%)    |
|                              | Day 57   | 844    |     | Binding Antibody to RBD      | 53.4%                      |

Table 2.8: Table 2g. Responder rates by Hispanic or Latino ethnicity (continued)

| Group                    | Baseline | Visit | N | Endpoint                     | Responder        | 2-Fold   |
|--------------------------|----------|-------|---|------------------------------|------------------|----------|
| Positive                 | Day 29   | 406   |   | Binding Antibody to Spike    | (49.3%, 57.5%)   | (49.3%)  |
|                          |          |       |   | PsV Neutralization 50% Titer | 53.4%            | 53.4%    |
|                          |          |       |   | PsV Neutralization 80% Titer | (49.3%, 57.5%)   | (49.3%)  |
|                          |          |       |   | Binding Antibody to RBD      | 50.8%            | 50.8%    |
|                          |          |       |   | Binding Antibody to Spike    | (46.0%, 55.5%)   | (46.0%)  |
|                          | Day 57   | 406   |   | PsV Neutralization 80% Titer | 52.2%            | 52.2%    |
|                          |          |       |   | Binding Antibody to RBD      | (47.8%, 56.5%)   | (47.8%)  |
|                          |          |       |   | Binding Antibody to Spike    | 100.0%           | 100.0%   |
|                          |          |       |   | PsV Neutralization 50% Titer | (100.0%, 100.0%) | (100.0%) |
|                          |          |       |   | PsV Neutralization 80% Titer | 64.9%            | 64.9%    |
| Not reported and unknown | Day 29   | 93    |   | PsV Neutralization 80% Titer | (51.7%, 78.1%)   | (51.7%)  |
|                          |          |       |   | Binding Antibody to RBD      | 80.5%            | 80.5%    |
|                          |          |       |   | Binding Antibody to Spike    | (74.9%, 86.0%)   | (74.9%)  |
|                          |          |       |   | PsV Neutralization 50% Titer | 100.0%           | 100.0%   |
|                          |          |       |   | PsV Neutralization 80% Titer | (100.0%, 100.0%) | (100.0%) |
|                          | Day 57   | 93    |   | Binding Antibody to Spike    | 91.7%            | 91.7%    |
|                          |          |       |   | PsV Neutralization 50% Titer | (87.3%, 96.2%)   | (87.3%)  |
|                          |          |       |   | PsV Neutralization 80% Titer | 98.9%            | 98.9%    |
|                          |          |       |   | Binding Antibody to RBD      | (98.1%, 99.6%)   | (98.1%)  |
|                          |          |       |   | Binding Antibody to Spike    | 42.1%            | 42.1%    |
| Positive                 | Day 29   | 60    |   | PsV Neutralization 50% Titer | (28.5%, 55.7%)   | (28.5%)  |
|                          |          |       |   | PsV Neutralization 80% Titer | 42.1%            | 42.1%    |
|                          |          |       |   | Binding Antibody to RBD      | (28.5%, 55.7%)   | (28.5%)  |
|                          |          |       |   | Binding Antibody to Spike    | 42.1%            | 42.1%    |
|                          |          |       |   | PsV Neutralization 50% Titer | (28.5%, 55.7%)   | (28.5%)  |
|                          | Day 57   | 60    |   | PsV Neutralization 80% Titer | 40.7%            | 40.7%    |
|                          |          |       |   | Binding Antibody to RBD      | (26.4%, 54.9%)   | (26.4%)  |
|                          |          |       |   | Binding Antibody to Spike    | 42.1%            | 42.1%    |
|                          |          |       |   | PsV Neutralization 50% Titer | (28.5%, 55.7%)   | (28.5%)  |
|                          |          |       |   | PsV Neutralization 80% Titer | 100.0%           | 100.0%   |

Table 2.8: Table 2g. Responder rates by Hispanic or Latino ethnicity (continu

| Group     | Baseline | Visit | N  | Endpoint                     | Responder                  |
|-----------|----------|-------|----|------------------------------|----------------------------|
| Day 57 60 |          |       |    | PsV Neutralization 50% Titer | 62.1%<br>(45.7%, 78.5%)    |
|           |          |       |    | PsV Neutralization 80% Titer | 95.3%<br>(86.7%, 103.9%)   |
|           |          |       | 60 | Binding Antibody to RBD      | 100.0%<br>(100.0%, 100.0%) |
|           |          |       |    | Binding Antibody to Spike    | 100.0%<br>(100.0%, 100.0%) |
|           |          |       |    | PsV Neutralization 50% Titer | 81.5%<br>(66.8%, 96.2%)    |
|           |          |       |    | PsV Neutralization 80% Titer | 95.6%<br>(91.7%, 99.5%)    |

Neutralization Responders are defined as participants who had baseline values below the lower limit of quantitation (LLOQ) and a 4-fold increase in antibody concentration above the assay LLOQ, or as participants with baseline values above the LLOQ with a 4-fold increase in antibody concentration.

Binding Antibody Responders are defined as participants who had baseline values below the LLOQ with detectable antibody concentration above the assay LLOQ, or as participants with baseline values above the LLOQ with a 4-fold increase in antibody concentration.

bAb LLOQ = 34; nAb ID50 LLOQ = 49; nAb ID80 LLOQ = 43

All calculations were weighted by the inverse probability sampling (IPS), defined based on the subcohort sampled.

Table 2.9: Table 2h. Responder rates by Race

| Group                            | Baseline | Visit  | N  | Endpoint                     | Responder                  | 2-Fold |
|----------------------------------|----------|--------|----|------------------------------|----------------------------|--------|
| <b>Race</b>                      |          |        |    |                              |                            |        |
| Not reported and unknown         | Negative | Day 29 | 98 | Binding Antibody to RBD      | 49.1%<br>(43.4%, 54.8%)    | 49.1%  |
|                                  |          |        |    | Binding Antibody to Spike    | 49.1%<br>(43.4%, 54.8%)    | 49.1%  |
|                                  |          |        |    | PsV Neutralization 50% Titer | 31.3%<br>(24.5%, 38.1%)    | 31.3%  |
|                                  |          |        |    | PsV Neutralization 80% Titer | 38.3%<br>(30.8%, 45.9%)    | 38.3%  |
|                                  |          | Day 57 | 98 | Binding Antibody to RBD      | 49.1%<br>(43.4%, 54.8%)    | 49.1%  |
|                                  |          |        |    | Binding Antibody to Spike    | 49.1%<br>(43.4%, 54.8%)    | 49.1%  |
|                                  |          |        |    | PsV Neutralization 50% Titer | 48.1%<br>(41.2%, 55.0%)    | 48.1%  |
|                                  |          |        |    | PsV Neutralization 80% Titer | 48.7%<br>(42.0%, 55.4%)    | 48.7%  |
| Positive                         | Day 29   | 48     |    | Binding Antibody to RBD      | 100.0%<br>(100.0%, 100.0%) | 100.0% |
|                                  |          |        |    | Binding Antibody to Spike    | 100.0%<br>(100.0%, 100.0%) | 100.0% |
|                                  |          |        |    | PsV Neutralization 50% Titer | 63.6%<br>(39.7%, 87.4%)    | 63.6%  |
|                                  |          |        |    | PsV Neutralization 80% Titer | 81.8%<br>(77.6%, 86.1%)    | 81.8%  |
|                                  |          | Day 57 | 48 | Binding Antibody to RBD      | 100.0%<br>(100.0%, 100.0%) | 100.0% |
|                                  |          |        |    | Binding Antibody to Spike    | 100.0%<br>(100.0%, 100.0%) | 100.0% |
|                                  |          |        |    | PsV Neutralization 50% Titer | 97.5%<br>(93.5%, 101.5%)   | 97.5%  |
|                                  |          |        |    | PsV Neutralization 80% Titer | 100.0%<br>(100.0%, 100.0%) | 100.0% |
| American Indian or Alaska Native | Negative | Day 29 | 27 | Binding Antibody to RBD      | 49.5%<br>(41.6%, 57.3%)    | 49.5%  |
|                                  |          |        |    | Binding Antibody to Spike    | 49.5%<br>(41.6%, 57.3%)    | 49.5%  |
|                                  |          |        |    | PsV Neutralization 50% Titer | 31.0%<br>(21.8%, 40.3%)    | 31.0%  |
|                                  |          |        |    | PsV Neutralization 80% Titer | 37.5%<br>(31.5%, 43.5%)    | 37.5%  |

Table 2.9: Table 2h. Responder rates by Race (continued)

| Group | Baseline | Visit  | N  | Endpoint                     | Responder                  |
|-------|----------|--------|----|------------------------------|----------------------------|
| Asian | Positive | Day 57 | 27 | Binding Antibody to RBD      | 49.5%<br>(41.6%, 57.3%)    |
|       |          |        |    | Binding Antibody to Spike    | 49.5%<br>(41.6%, 57.3%)    |
|       |          |        |    | PsV Neutralization 50% Titer | 48.6%<br>(39.9%, 57.3%)    |
|       |          |        |    | PsV Neutralization 80% Titer | 48.6%<br>(39.9%, 57.3%)    |
|       |          | Day 29 | 17 | Binding Antibody to RBD      | 100.0%<br>(100.0%, 100.0%) |
|       |          |        |    | Binding Antibody to Spike    | 100.0%<br>(100.0%, 100.0%) |
|       |          |        |    | PsV Neutralization 50% Titer | 78.4%<br>(70.4%, 86.4%)    |
|       |          |        |    | PsV Neutralization 80% Titer | 90.3%<br>(64.8%, 115.7%)   |
|       |          | Day 57 | 17 | Binding Antibody to RBD      | 100.0%<br>(100.0%, 100.0%) |
|       |          |        |    | Binding Antibody to Spike    | 100.0%<br>(100.0%, 100.0%) |
|       | Negative | Day 29 | 84 | PsV Neutralization 50% Titer | 96.9%<br>(88.9%, 105.0%)   |
|       |          |        |    | PsV Neutralization 80% Titer | 100.0%<br>(100.0%, 100.0%) |
|       |          |        |    | Binding Antibody to RBD      | 58.2%<br>(47.3%, 69.2%)    |
|       |          |        |    | Binding Antibody to Spike    | 58.2%<br>(47.3%, 69.2%)    |
|       |          |        |    | PsV Neutralization 50% Titer | 38.2%<br>(35.2%, 41.1%)    |
|       | Positive | Day 57 | 84 | PsV Neutralization 80% Titer | 51.9%<br>(40.2%, 63.5%)    |
|       |          |        |    | Binding Antibody to RBD      | 58.2%<br>(47.3%, 69.2%)    |
|       |          |        |    | Binding Antibody to Spike    | 58.2%<br>(47.3%, 69.2%)    |
|       |          |        |    | PsV Neutralization 50% Titer | 57.2%<br>(44.1%, 70.3%)    |
|       |          |        |    | PsV Neutralization 80% Titer | 57.3%<br>(46.0%, 68.7%)    |
|       | Positive | Day 29 | 46 | Binding Antibody to RBD      | 100.0%<br>(100.0%, 100.0%) |
|       |          |        |    | Binding Antibody to Spike    | 100.0%                     |

Table 2.9: Table 2h. Responder rates by Race (continued)

| Group                     | Baseline | Visit  | N   | Endpoint                     | Responder        | 2-Fold   |
|---------------------------|----------|--------|-----|------------------------------|------------------|----------|
| Black or African American | Negative | Day 29 | 216 | PsV Neutralization 50% Titer | (100.0%, 100.0%) | (100.0%) |
|                           |          |        |     | PsV Neutralization 50% Titer | 56.3%            | 56.3%    |
|                           |          |        |     | PsV Neutralization 80% Titer | (26.7%, 85.9%)   | (26.7%)  |
|                           |          | Day 57 | 46  | PsV Neutralization 80% Titer | 73.1%            | 73.1%    |
|                           |          |        |     | Binding Antibody to RBD      | (53.7%, 92.6%)   | (53.7%)  |
|                           |          |        |     | Binding Antibody to RBD      | 100.0%           | 100.0%   |
|                           | Positive | Day 29 | 91  | Binding Antibody to Spike    | (100.0%, 100.0%) | (100.0%) |
|                           |          |        |     | Binding Antibody to Spike    | 100.0%           | 100.0%   |
|                           |          |        |     | PsV Neutralization 50% Titer | (100.0%, 100.0%) | (100.0%) |
|                           |          | Day 57 | 216 | PsV Neutralization 50% Titer | 84.2%            | 84.2%    |
|                           |          |        |     | PsV Neutralization 80% Titer | (72.1%, 96.4%)   | (72.1%)  |
|                           |          |        |     | PsV Neutralization 80% Titer | 95.0%            | 95.0%    |
|                           |          |        |     | Binding Antibody to RBD      | (90.3%, 99.7%)   | (90.3%)  |
|                           |          |        |     | Binding Antibody to RBD      | 51.5%            | 51.5%    |
|                           |          |        |     | Binding Antibody to Spike    | (50.4%, 52.6%)   | (50.4%)  |
|                           |          |        |     | Binding Antibody to Spike    | 51.5%            | 51.5%    |
|                           |          |        |     | PsV Neutralization 50% Titer | (50.4%, 52.6%)   | (50.4%)  |
|                           |          |        |     | PsV Neutralization 50% Titer | 32.9%            | 32.9%    |
|                           |          |        |     | PsV Neutralization 80% Titer | (27.1%, 38.8%)   | (27.1%)  |
|                           |          |        |     | PsV Neutralization 80% Titer | 39.5%            | 39.5%    |
|                           |          |        |     | Binding Antibody to RBD      | (33.8%, 45.3%)   | (33.8%)  |
|                           |          |        |     | Binding Antibody to RBD      | 51.5%            | 51.5%    |
|                           |          |        |     | Binding Antibody to Spike    | (50.4%, 52.6%)   | (50.4%)  |
|                           |          |        |     | Binding Antibody to Spike    | 51.5%            | 51.5%    |
|                           |          |        |     | PsV Neutralization 50% Titer | (50.4%, 52.6%)   | (50.4%)  |
|                           |          |        |     | PsV Neutralization 50% Titer | 46.2%            | 46.2%    |
|                           |          |        |     | PsV Neutralization 80% Titer | (42.0%, 50.3%)   | (42.0%)  |
|                           |          |        |     | PsV Neutralization 80% Titer | 49.6%            | 49.6%    |
|                           |          |        |     | Binding Antibody to RBD      | (48.3%, 50.8%)   | (48.3%)  |
|                           |          |        |     | Binding Antibody to RBD      | 100.0%           | 100.0%   |
|                           |          |        |     | Binding Antibody to Spike    | (100.0%, 100.0%) | (100.0%) |
|                           |          |        |     | Binding Antibody to Spike    | 100.0%           | 100.0%   |
|                           |          |        |     | PsV Neutralization 50% Titer | (100.0%, 100.0%) | (100.0%) |
|                           |          |        |     | PsV Neutralization 50% Titer | 57.5%            | 57.5%    |
|                           |          |        |     | PsV Neutralization 80% Titer | (45.2%, 69.7%)   | (45.2%)  |
|                           |          |        |     | PsV Neutralization 80% Titer | 81.2%            | 81.2%    |
|                           |          |        |     | Binding Antibody to RBD      | (69.8%, 92.7%)   | (69.8%)  |
|                           |          |        |     | Binding Antibody to RBD      | 100.0%           | 100.0%   |
|                           |          |        |     | Binding Antibody to Spike    | (100.0%, 100.0%) | (100.0%) |
|                           |          |        |     | Binding Antibody to Spike    | 100.0%           | 100.0%   |
|                           |          |        |     | PsV Neutralization 50% Titer | (100.0%, 100.0%) | (100.0%) |
|                           |          |        |     | PsV Neutralization 50% Titer | 93.2%            | 93.2%    |
|                           |          |        |     | PsV Neutralization 50% Titer | (89.9%, 96.6%)   | (89.9%)  |

Table 2.9: Table 2h. Responder rates by Race (continued)

| Group                                     | Baseline | Visit  | N  | Endpoint                     | Responder                  |  |
|---|----------|--------|----|------------------------------|----------------------------|--|
| Multiracial                               | Negative | Day 29 | 62 | PsV Neutralization 80% Titer | 98.7%<br>(96.2%, 101.2%)   |  |
|   |          |        |    | Binding Antibody to RBD      | 37.1%<br>(23.9%, 50.3%)    |  |
|   |          | Day 57 |    | Binding Antibody to Spike    | 37.1%<br>(23.9%, 50.3%)    |  |
|   |          |        |    | PsV Neutralization 50% Titer | 17.7%<br>(0.6%, 34.9%)     |  |
|   |          |        |    | PsV Neutralization 80% Titer | 28.6%<br>(16.3%, 40.8%)    |  |
|   | Positive | Day 29 | 28 | Binding Antibody to RBD      | 37.1%<br>(23.9%, 50.3%)    |  |
|   |          |        |    | Binding Antibody to Spike    | 37.1%<br>(23.9%, 50.3%)    |  |
|   |          | Day 57 |    | PsV Neutralization 50% Titer | 37.1%<br>(23.9%, 50.3%)    |  |
|   |          |        |    | PsV Neutralization 80% Titer | 37.1%<br>(23.9%, 50.3%)    |  |
|   |          |        |    | Binding Antibody to RBD      | 100.0%<br>(100.0%, 100.0%) |  |
| Native Hawaiian or Other Pacific Islander | Negative | Day 29 | 20 | Binding Antibody to Spike    | 100.0%<br>(100.0%, 100.0%) |  |
|   |          |        |    | PsV Neutralization 50% Titer | 71.6%<br>(63.3%, 79.9%)    |  |
|   |          | Day 57 |    | PsV Neutralization 80% Titer | 89.3%<br>(82.6%, 96.0%)    |  |
|   |          |        |    | Binding Antibody to RBD      | 100.0%<br>(100.0%, 100.0%) |  |
|   |          |        |    | Binding Antibody to Spike    | 100.0%<br>(100.0%, 100.0%) |  |
|   | Positive | Day 29 | 20 | PsV Neutralization 50% Titer | 85.8%<br>(74.4%, 97.3%)    |  |
|   |          |        |    | PsV Neutralization 80% Titer | 100.0%<br>(100.0%, 100.0%) |  |
|   |          | Day 57 |    | Binding Antibody to RBD      | 66.0%<br>(20.6%, 111.3%)   |  |
|   |          |        |    | Binding Antibody to Spike    | 66.0%<br>(20.6%, 111.3%)   |  |
|   |          |        |    | PsV Neutralization 50% Titer | 45.5%<br>(26.4%, 64.7%)    |  |

Table 2.9: Table 2h. Responder rates by Race (continued)

| Group    | Baseline | Visit | N                            | Endpoint | Responder | 2-Fold   |
|----------|----------|-------|------------------------------|----------|-----------|----------|
| Positive | Day 57   | 20    | Binding Antibody to RBD      | 66.0%    | 66.0%     | 66.0%    |
|          |          |       | (20.6%, 111.3%)              | (20.6%)  | (20.6%)   | (20.6%)  |
|          |          |       | Binding Antibody to Spike    | 66.0%    | 66.0%     | 66.0%    |
|          |          |       | (20.6%, 111.3%)              | (20.6%)  | (20.6%)   | (20.6%)  |
|          |          |       | PsV Neutralization 50% Titer | 66.0%    | 66.0%     | 66.0%    |
|          | Day 29   | 7     | (20.6%, 111.3%)              | (20.6%)  | (20.6%)   | (20.6%)  |
|          |          |       | Binding Antibody to RBD      | 66.0%    | 66.0%     | 66.0%    |
|          |          |       | (20.6%, 111.3%)              | (20.6%)  | (20.6%)   | (20.6%)  |
|          |          |       | Binding Antibody to Spike    | 100.0%   | 100.0%    | 100.0%   |
|          |          |       | (100.0%, 100.0%)             | (100.0%) | (100.0%)  | (100.0%) |
| Other    | Day 57   | 7     | PsV Neutralization 50% Titer | 91.4%    | 91.4%     | 91.4%    |
|          |          |       | (76.1%, 106.7%)              | (76.1%)  | (76.1%)   | (76.1%)  |
|          |          |       | PsV Neutralization 80% Titer | 100.0%   | 100.0%    | 100.0%   |
|          |          |       | (100.0%, 100.0%)             | (100.0%) | (100.0%)  | (100.0%) |
|          |          |       | Binding Antibody to RBD      | 100.0%   | 100.0%    | 100.0%   |
|          | Day 29   | 28    | (100.0%, 100.0%)             | (100.0%) | (100.0%)  | (100.0%) |
|          |          |       | Binding Antibody to Spike    | 100.0%   | 100.0%    | 100.0%   |
|          |          |       | (100.0%, 100.0%)             | (100.0%) | (100.0%)  | (100.0%) |
|          |          |       | PsV Neutralization 50% Titer | 89.1%    | 89.1%     | 89.1%    |
|          |          |       | (60.6%, 117.6%)              | (60.6%)  | (60.6%)   | (60.6%)  |
| Positive | Day 57   | 28    | PsV Neutralization 80% Titer | 100.0%   | 100.0%    | 100.0%   |
|          |          |       | (100.0%, 100.0%)             | (100.0%) | (100.0%)  | (100.0%) |
|          |          |       | Binding Antibody to RBD      | 79.8%    | 79.8%     | 79.8%    |
|          |          |       | (45.4%, 114.3%)              | (45.4%)  | (45.4%)   | (45.4%)  |
|          |          |       | Binding Antibody to Spike    | 79.8%    | 79.8%     | 79.8%    |
|          | Day 29   | 24    | (45.4%, 114.3%)              | (45.4%)  | (45.4%)   | (45.4%)  |
|          |          |       | PsV Neutralization 50% Titer | 59.3%    | 59.3%     | 59.3%    |
|          |          |       | (39.3%, 79.2%)               | (39.3%)  | (39.3%)   | (39.3%)  |
|          |          |       | PsV Neutralization 80% Titer | 53.8%    | 53.8%     | 53.8%    |
|          |          |       | (44.2%, 63.3%)               | (44.2%)  | (44.2%)   | (44.2%)  |
| Positive | Day 57   | 28    | Binding Antibody to RBD      | 79.8%    | 79.8%     | 79.8%    |
|          |          |       | (45.4%, 114.3%)              | (45.4%)  | (45.4%)   | (45.4%)  |
|          |          |       | Binding Antibody to Spike    | 79.8%    | 79.8%     | 79.8%    |
|          |          |       | (45.4%, 114.3%)              | (45.4%)  | (45.4%)   | (45.4%)  |
|          |          |       | PsV Neutralization 50% Titer | 77.2%    | 77.2%     | 77.2%    |
|          | Day 29   | 24    | (44.4%, 110.0%)              | (44.4%)  | (44.4%)   | (44.4%)  |
|          |          |       | PsV Neutralization 80% Titer | 67.6%    | 67.6%     | 67.6%    |
|          |          |       | (49.3%, 85.8%)               | (49.3%)  | (49.3%)   | (49.3%)  |
|          |          |       | Binding Antibody to RBD      | 100.0%   | 100.0%    | 100.0%   |
|          |          |       | (100.0%, 100.0%)             | (100.0%) | (100.0%)  | (100.0%) |
| Other    | Day 57   | 28    | Binding Antibody to Spike    | 100.0%   | 100.0%    | 100.0%   |
|          |          |       | (100.0%)                     | (100.0%) | (100.0%)  | (100.0%) |
|          |          |       | Binding Antibody to RBD      | 79.8%    | 79.8%     | 79.8%    |
|          |          |       | (45.4%, 114.3%)              | (45.4%)  | (45.4%)   | (45.4%)  |
|          |          |       | Binding Antibody to Spike    | 79.8%    | 79.8%     | 79.8%    |
|          | Day 29   | 24    | (45.4%, 114.3%)              | (45.4%)  | (45.4%)   | (45.4%)  |
|          |          |       | PsV Neutralization 50% Titer | 59.3%    | 59.3%     | 59.3%    |
|          |          |       | (39.3%, 79.2%)               | (39.3%)  | (39.3%)   | (39.3%)  |
|          |          |       | PsV Neutralization 80% Titer | 53.8%    | 53.8%     | 53.8%    |
|          |          |       | (44.2%, 63.3%)               | (44.2%)  | (44.2%)   | (44.2%)  |

Table 2.9: Table 2h. Responder rates by Race (continued)

| Group | Baseline | Visit  | N  | Endpoint                     | Responder                  |
|-------|----------|--------|----|------------------------------|----------------------------|
| White | Negative | Day 29 | 43 | PsV Neutralization 50% Titer | (100.0%, 100.0%)           |
|       |          |        |    | PsV Neutralization 80% Titer | 55.8%<br>(43.9%, 67.7%)    |
|       |          | Day 57 | 24 | Binding Antibody to RBD      | 82.9%<br>(76.1%, 89.7%)    |
|       |          |        |    | Binding Antibody to Spike    | 100.0%<br>(100.0%, 100.0%) |
|       |          |        |    | PsV Neutralization 50% Titer | 100.0%<br>(100.0%, 100.0%) |
|       | Positive | Day 29 | 38 | PsV Neutralization 80% Titer | 90.4%<br>(87.7%, 93.2%)    |
|       |          |        |    | Binding Antibody to RBD      | 100.0%<br>(100.0%, 100.0%) |
|       |          | Day 57 | 43 | Binding Antibody to Spike    | 47.0%<br>(31.9%, 62.0%)    |
|       |          |        |    | PsV Neutralization 50% Titer | 47.0%<br>(31.9%, 62.0%)    |
|       |          |        |    | PsV Neutralization 80% Titer | 35.1%<br>(25.2%, 45.0%)    |
|       |          | Day 57 | 38 | Binding Antibody to RBD      | 38.7%<br>(20.7%, 56.7%)    |
|       |          |        |    | Binding Antibody to Spike    | 47.0%<br>(31.9%, 62.0%)    |
|       |          |        |    | PsV Neutralization 50% Titer | 43.3%<br>(26.8%, 59.8%)    |
|       |          |        |    | PsV Neutralization 80% Titer | 47.0%<br>(31.9%, 62.0%)    |
|       |          |        |    | Binding Antibody to RBD      | 100.0%<br>(100.0%, 100.0%) |
|       |          |        |    | Binding Antibody to Spike    | 100.0%<br>(100.0%, 100.0%) |
|       |          | Day 29 | 38 | PsV Neutralization 50% Titer | 68.1%<br>(52.8%, 83.4%)    |
|       |          |        |    | PsV Neutralization 80% Titer | 96.2%<br>(89.1%, 103.3%)   |
|       |          |        |    | Binding Antibody to RBD      | 100.0%<br>(100.0%, 100.0%) |
|       |          | Day 57 | 38 | Binding Antibody to Spike    | 100.0%<br>(100.0%, 100.0%) |
|       |          |        |    | PsV Neutralization 50% Titer | 78.4%<br>(62.2%, 94.5%)    |

Table 2.9: Table 2h. Responder rates by Race (continued)

| Group              | Baseline | Visit  | N   | Endpoint                     | Responder                  | 2-Fold             |
|--------------------|----------|--------|-----|------------------------------|----------------------------|--------------------|
| White Non-Hispanic | Negative | Day 29 | 456 | PsV Neutralization 80% Titer | 93.7%<br>(87.0%, 100.5%)   | 93.7%<br>(87.0%)   |
|                    |          |        |     | Binding Antibody to RBD      | 52.3%<br>(49.2%, 55.5%)    | 52.3%<br>(49.2%)   |
|                    |          | Day 57 | 456 | Binding Antibody to Spike    | 52.3%<br>(49.2%, 55.5%)    | 52.3%<br>(49.2%)   |
|                    |          |        |     | PsV Neutralization 50% Titer | 36.0%<br>(29.5%, 42.5%)    | 36.0%<br>(29.5%)   |
|                    |          |        |     | PsV Neutralization 80% Titer | 42.2%<br>(38.0%, 46.5%)    | 42.2%<br>(38.0%)   |
|                    | Positive | Day 29 | 224 | Binding Antibody to RBD      | 52.3%<br>(49.2%, 55.5%)    | 52.3%<br>(49.2%)   |
|                    |          |        |     | Binding Antibody to Spike    | 52.3%<br>(49.2%, 55.5%)    | 52.3%<br>(49.2%)   |
|                    |          | Day 57 | 224 | PsV Neutralization 50% Titer | 50.5%<br>(45.9%, 55.2%)    | 50.5%<br>(45.9%)   |
|                    |          |        |     | PsV Neutralization 80% Titer | 51.4%<br>(48.1%, 54.6%)    | 51.4%<br>(48.1%)   |
|                    |          |        |     | Binding Antibody to RBD      | 100.0%<br>(100.0%, 100.0%) | 100.0%<br>(100.0%) |
|                    |          |        |     | Binding Antibody to Spike    | 100.0%<br>(100.0%, 100.0%) | 100.0%<br>(100.0%) |
|                    |          |        |     | PsV Neutralization 50% Titer | 65.2%<br>(54.5%, 75.9%)    | 65.2%<br>(54.5%)   |
|                    |          |        |     | PsV Neutralization 80% Titer | 79.8%<br>(76.2%, 83.4%)    | 79.8%<br>(76.2%)   |
|                    |          |        |     | Binding Antibody to RBD      | 100.0%<br>(100.0%, 100.0%) | 100.0%<br>(100.0%) |
|                    |          |        |     | Binding Antibody to Spike    | 100.0%<br>(100.0%, 100.0%) | 100.0%<br>(100.0%) |
|                    |          |        |     | PsV Neutralization 50% Titer | 91.8%<br>(87.1%, 96.5%)    | 91.8%<br>(87.1%)   |
|                    |          |        |     | PsV Neutralization 80% Titer | 98.1%<br>(97.4%, 98.9%)    | 98.1%<br>(97.4%)   |

Neutralization Responders are defined as participants who had baseline values below the lower limit of quantification or neutralization titer above the assay LLOQ, or as participants with baseline values above the LLOQ with a 4-fold increase.

Binding Antibody Responders are defined as participants who had baseline values below the LLOQ with detectable antibody or assay LLOQ, or as participants with baseline values above the LLOQ with a 4-fold increase in antibody concentration.

bAb LLOQ = 34; nAb ID50 LLOQ = 49; nAb ID80 LLOQ = 43

All calculations were weighted by the inverse probability sampling (IPS), defined based on the subcohort sampling strata.

Table 2.10: Table 2i. Responder rates by Race and ethnic group

| Group                 | Baseline | Visit  | N   | Endpoint                     | Responder                  |
|-----------------------|----------|--------|-----|------------------------------|----------------------------|
| Race and ethnic group |          |        |     |                              |                            |
| White Non-Hispanic    |          |        |     |                              |                            |
|                       | Negative | Day 29 | 456 | Binding Antibody to RBD      | 52.3%<br>(49.2%, 55.5%)    |
|                       |          |        |     | Binding Antibody to Spike    | 52.3%<br>(49.2%, 55.5%)    |
|                       |          |        |     | PsV Neutralization 50% Titer | 36.0%<br>(29.5%, 42.5%)    |
|                       |          |        |     | PsV Neutralization 80% Titer | 42.2%<br>(38.0%, 46.5%)    |
|                       |          | Day 57 | 456 | Binding Antibody to RBD      | 52.3%<br>(49.2%, 55.5%)    |
|                       |          |        |     | Binding Antibody to Spike    | 52.3%<br>(49.2%, 55.5%)    |
|                       |          |        |     | PsV Neutralization 50% Titer | 50.5%<br>(45.9%, 55.2%)    |
|                       |          |        |     | PsV Neutralization 80% Titer | 51.4%<br>(48.1%, 54.6%)    |
|                       | Positive | Day 29 | 224 | Binding Antibody to RBD      | 100.0%<br>(100.0%, 100.0%) |
|                       |          |        |     | Binding Antibody to Spike    | 100.0%<br>(100.0%, 100.0%) |
|                       |          |        |     | PsV Neutralization 50% Titer | 65.2%<br>(54.5%, 75.9%)    |
|                       |          |        |     | PsV Neutralization 80% Titer | 79.8%<br>(76.2%, 83.4%)    |
|                       |          | Day 57 | 224 | Binding Antibody to RBD      | 100.0%<br>(100.0%, 100.0%) |
|                       |          |        |     | Binding Antibody to Spike    | 100.0%<br>(100.0%, 100.0%) |
|                       |          |        |     | PsV Neutralization 50% Titer | 91.8%<br>(87.1%, 96.5%)    |
|                       |          |        |     | PsV Neutralization 80% Titer | 98.1%<br>(97.4%, 98.9%)    |
| Communities of Color  | Negative | Day 29 | 535 | Binding Antibody to RBD      | 51.1%<br>(50.5%, 51.6%)    |
|                       |          |        |     | Binding Antibody to Spike    | 51.1%<br>(50.5%, 51.6%)    |
|                       |          |        |     | PsV Neutralization 50% Titer | 32.2%<br>(25.9%, 38.4%)    |
|                       |          |        |     | PsV Neutralization 80% Titer | 40.4%<br>(36.2%, 44.5%)    |
|                       |          | Day 57 | 535 | Binding Antibody to RBD      | 51.1%                      |

Table 2.10: Table 2i. Responder rates by Race and ethnic group (continued)

| Group    | Baseline | Visit | N | Endpoint                     | Responder        | 2-Fold   |
|----------|----------|-------|---|------------------------------|------------------|----------|
|          |          |       |   | Binding Antibody to Spike    | (50.5%, 51.6%)   | (50.5%)  |
|          |          |       |   | PsV Neutralization 50% Titer | 51.1%            | 51.1%    |
|          |          |       |   | PsV Neutralization 80% Titer | (50.5%, 51.6%)   | (50.5%)  |
|          |          |       |   | Binding Antibody to RBD      | 48.4%            | 48.4%    |
|          |          |       |   | Binding Antibody to Spike    | (48.1%, 48.6%)   | (48.1%)  |
|          |          |       |   | PsV Neutralization 50% Titer | 49.6%            | 49.6%    |
|          |          |       |   | PsV Neutralization 80% Titer | (49.3%, 50.0%)   | (49.3%)  |
| Positive | Day 29   | 261   |   | Binding Antibody to RBD      | 100.0%           | 100.0%   |
|          |          |       |   | Binding Antibody to Spike    | (100.0%, 100.0%) | (100.0%) |
|          |          |       |   | PsV Neutralization 50% Titer | 61.8%            | 61.8%    |
|          |          |       |   | PsV Neutralization 80% Titer | (47.3%, 76.3%)   | (47.3%)  |
|          | Day 57   | 261   |   | Binding Antibody to RBD      | 82.0%            | 82.0%    |
|          |          |       |   | Binding Antibody to Spike    | (74.7%, 89.3%)   | (74.7%)  |
|          |          |       |   | PsV Neutralization 50% Titer | 100.0%           | 100.0%   |
|          |          |       |   | PsV Neutralization 80% Titer | (100.0%, 100.0%) | (100.0%) |
|          |          |       |   | Binding Antibody to RBD      | 100.0%           | 100.0%   |
|          |          |       |   | Binding Antibody to Spike    | (100.0%, 100.0%) | (100.0%) |
|          |          |       |   | PsV Neutralization 50% Titer | 91.2%            | 91.2%    |
|          |          |       |   | PsV Neutralization 80% Titer | (86.8%, 95.7%)   | (86.8%)  |
|          |          |       |   | Binding Antibody to RBD      | 98.7%            | 98.7%    |
|          |          |       |   | Binding Antibody to Spike    | (98.6%, 98.7%)   | (98.6%)  |

Neutralization Responders are defined as participants who had baseline values below the lower limit of quantification (LLOQ) or as participants with baseline values above the LLOQ with a 4-fold increase in neutralization titer above the assay LLOQ, or as participants with baseline values above the LLOQ with a 4-fold increase in antibody concentration.

Binding Antibody Responders are defined as participants who had baseline values below the LLOQ with detectable antibody concentration or as participants with baseline values above the LLOQ with a 4-fold increase in antibody concentration.

bAb LLOQ = 34; nAb ID50 LLOQ = 49; nAb ID80 LLOQ = 43

All calculations were weighted by the inverse probability sampling (IPS), defined based on the subcohort sampling strata.

Table 2.11: Table 2j. Responder rates by Age, Race and ethnic group

| Group                         | Baseline | Visit  | N   | Endpoint                     | Responder        |
|-------------------------------|----------|--------|-----|------------------------------|------------------|
| Age, Race and ethnic group    |          |        |     |                              |                  |
| Age ≥ 65 Communities of Color | Negative | Day 29 | 253 | Binding Antibody to RBD      | 51.3%            |
|                               |          |        |     | Binding Antibody to Spike    | (51.1%, 51.5%)   |
|                               |          |        |     | PsV Neutralization 50% Titer | 51.3%            |
|                               |          |        |     | PsV Neutralization 80% Titer | (51.1%, 51.5%)   |
|                               |          | Day 57 | 253 | Binding Antibody to RBD      | 29.6%            |
|                               |          |        |     | Binding Antibody to Spike    | (29.3%, 30.0%)   |
|                               |          |        |     | PsV Neutralization 50% Titer | 38.6%            |
|                               |          |        |     | PsV Neutralization 80% Titer | (37.1%, 40.1%)   |
| Positive                      | Day 29   | 148    |     | Binding Antibody to RBD      | 51.3%            |
|                               |          |        |     | Binding Antibody to Spike    | (51.1%, 51.5%)   |
|                               |          |        |     | PsV Neutralization 50% Titer | 51.3%            |
|                               |          |        |     | PsV Neutralization 80% Titer | (51.1%, 51.5%)   |
| Age ≥ 65 White Non-Hispanic   | Negative | Day 29 | 227 | Binding Antibody to RBD      | 48.3%            |
|                               |          |        |     | Binding Antibody to Spike    | (48.1%, 48.4%)   |
|                               |          |        |     | PsV Neutralization 50% Titer | 49.7%            |
|                               |          |        |     | PsV Neutralization 80% Titer | (49.6%, 49.9%)   |
|                               |          | Day 57 | 148 | Binding Antibody to RBD      | 100.0%           |
|                               |          |        |     | Binding Antibody to Spike    | (100.0%, 100.0%) |
|                               |          |        |     | PsV Neutralization 50% Titer | 100.0%           |
|                               |          |        |     | PsV Neutralization 80% Titer | (100.0%, 100.0%) |
|                               |          |        |     | Binding Antibody to RBD      | 56.4%            |
|                               |          |        |     | Binding Antibody to Spike    | (54.6%, 58.2%)   |
|                               |          |        |     | PsV Neutralization 50% Titer | 79.1%            |
|                               |          |        |     | PsV Neutralization 80% Titer | (73.5%, 84.7%)   |
|                               |          |        |     | Binding Antibody to RBD      | 100.0%           |
|                               |          |        |     | Binding Antibody to Spike    | (100.0%, 100.0%) |
|                               |          |        |     | PsV Neutralization 50% Titer | 100.0%           |
|                               |          |        |     | PsV Neutralization 80% Titer | (100.0%, 100.0%) |
|                               |          |        |     | Binding Antibody to RBD      | 89.6%            |
|                               |          |        |     | Binding Antibody to Spike    | (88.8%, 90.5%)   |
|                               |          |        |     | PsV Neutralization 50% Titer | 98.6%            |
|                               |          |        |     | PsV Neutralization 80% Titer | (98.6%, 98.7%)   |
|                               |          |        |     | Binding Antibody to RBD      | 52.3%            |
|                               |          |        |     | Binding Antibody to Spike    | (48.4%, 56.3%)   |
|                               |          |        |     | PsV Neutralization 50% Titer | 52.3%            |
|                               |          |        |     | PsV Neutralization 80% Titer | (48.4%, 56.3%)   |
|                               |          |        |     | Binding Antibody to RBD      | 33.8%            |
|                               |          |        |     | Binding Antibody to Spike    | (26.9%, 40.7%)   |
|                               |          |        |     | PsV Neutralization 50% Titer | 41.0%            |
|                               |          |        |     | PsV Neutralization 80% Titer | (35.9%, 46.1%)   |

Table 2.11: Table 2j. Responder rates by Age, Race and ethnic group (continued)

| Group                             | Baseline | Visit  | N   | Endpoint                     | Responder                  | 2-Fold |
|-----------------------------------|----------|--------|-----|------------------------------|----------------------------|--------|
|                                   |          | Day 57 | 227 | Binding Antibody to RBD      | 52.3%<br>(48.4%, 56.3%)    | 52.3%  |
|                                   |          |        |     | Binding Antibody to Spike    | 52.3%<br>(48.4%, 56.3%)    | 52.3%  |
|                                   |          |        |     | PsV Neutralization 50% Titer | 50.5%<br>(44.7%, 56.4%)    | 50.5%  |
|                                   |          |        |     | PsV Neutralization 80% Titer | 51.1%<br>(46.8%, 55.4%)    | 51.1%  |
| Positive                          | Day 29   | 117    |     | Binding Antibody to RBD      | 100.0%<br>(100.0%, 100.0%) | 100.0% |
|                                   |          |        |     | Binding Antibody to Spike    | 100.0%<br>(100.0%, 100.0%) | 100.0% |
|                                   |          |        |     | PsV Neutralization 50% Titer | 61.0%<br>(59.0%, 63.0%)    | 61.0%  |
|                                   |          |        |     | PsV Neutralization 80% Titer | 78.4%<br>(78.0%, 78.7%)    | 78.4%  |
| Age $i = 65$ Communities of Color | Negative | Day 29 | 282 | Binding Antibody to RBD      | 100.0%<br>(100.0%, 100.0%) | 100.0% |
|                                   |          |        |     | Binding Antibody to Spike    | 100.0%<br>(100.0%, 100.0%) | 100.0% |
|                                   |          |        |     | PsV Neutralization 50% Titer | 90.3%<br>(87.7%, 92.9%)    | 90.3%  |
|                                   |          |        |     | PsV Neutralization 80% Titer | 97.9%<br>(97.0%, 98.7%)    | 97.9%  |
|                                   |          | Day 57 | 117 | Binding Antibody to RBD      | 50.2%<br>(50.2%, 50.2%)    | 50.2%  |
|                                   |          |        |     | Binding Antibody to Spike    | 50.2%<br>(50.2%, 50.2%)    | 50.2%  |
|                                   |          |        |     | PsV Neutralization 50% Titer | 41.0%<br>(41.0%, 41.0%)    | 41.0%  |
|                                   |          |        |     | PsV Neutralization 80% Titer | 46.7%<br>(46.7%, 46.7%)    | 46.7%  |
|                                   |          | Day 57 | 282 | Binding Antibody to RBD      | 50.2%<br>(50.2%, 50.2%)    | 50.2%  |
|                                   |          |        |     | Binding Antibody to Spike    | 50.2%<br>(50.2%, 50.2%)    | 50.2%  |
|                                   |          |        |     | PsV Neutralization 50% Titer | 48.8%<br>(48.8%, 48.8%)    | 48.8%  |
|                                   |          |        |     | PsV Neutralization 80% Titer | 49.2%<br>(49.2%, 49.2%)    | 49.2%  |
| Positive                          | Day 29   | 113    |     | Binding Antibody to RBD      | 100.0%<br>(100.0%, 100.0%) | 100.0% |

Table 2.11: Table 2j. Responder rates by Age, Race and ethnic group (contin)

| Group                               | Baseline | Visit  | N   | Endpoint                     | Responder                  |
|-------------------------------------|----------|--------|-----|------------------------------|----------------------------|
|                                     |          |        |     | Binding Antibody to Spike    | 100.0%<br>(100.0%, 100.0%) |
|                                     |          |        |     | PsV Neutralization 50% Titer | 86.7%<br>(86.7%, 86.7%)    |
|                                     |          |        |     | PsV Neutralization 80% Titer | 95.1%<br>(95.1%, 95.1%)    |
|                                     | Day 57   | 113    |     | Binding Antibody to RBD      | 100.0%<br>(100.0%, 100.0%) |
| Age $\geq$ 65 White<br>Non-Hispanic | Negative | Day 29 | 229 | Binding Antibody to Spike    | 100.0%<br>(100.0%, 100.0%) |
|                                     |          |        |     | PsV Neutralization 50% Titer | 98.7%<br>(98.7%, 98.7%)    |
|                                     |          |        |     | PsV Neutralization 80% Titer | 98.7%<br>(98.7%, 98.7%)    |
|                                     |          |        |     | Binding Antibody to RBD      | 52.3%<br>(52.3%, 52.3%)    |
|                                     |          |        |     | Binding Antibody to Spike    | 52.3%<br>(52.3%, 52.3%)    |
|                                     |          |        |     | PsV Neutralization 50% Titer | 44.8%<br>(44.8%, 44.8%)    |
|                                     |          |        |     | PsV Neutralization 80% Titer | 47.0%<br>(47.0%, 47.0%)    |
|                                     | Day 57   | 229    |     | Binding Antibody to RBD      | 52.3%<br>(52.3%, 52.3%)    |
|                                     |          |        |     | Binding Antibody to Spike    | 52.3%<br>(52.3%, 52.3%)    |
|                                     |          |        |     | PsV Neutralization 50% Titer | 50.5%<br>(50.5%, 50.5%)    |
|                                     |          |        |     | PsV Neutralization 80% Titer | 52.3%<br>(52.3%, 52.3%)    |
|                                     | Positive | Day 29 | 107 | Binding Antibody to RBD      | 100.0%<br>(100.0%, 100.0%) |
|                                     |          |        |     | Binding Antibody to Spike    | 100.0%<br>(100.0%, 100.0%) |
|                                     |          |        |     | PsV Neutralization 50% Titer | 80.4%<br>(80.4%, 80.4%)    |
|                                     |          |        |     | PsV Neutralization 80% Titer | 85.0%<br>(85.0%, 85.0%)    |
|                                     | Day 57   | 107    |     | Binding Antibody to RBD      | 100.0%<br>(100.0%, 100.0%) |
|                                     |          |        |     | Binding Antibody to Spike    | 100.0%<br>(100.0%, 100.0%) |

Table 2.11: Table 2j. Responder rates by Age, Race and ethnic group (continued)

| Group | Baseline | Visit | N | Endpoint                     | Responder               | 2-Fold |
|-------|----------|-------|---|------------------------------|-------------------------|--------|
|       |          |       |   | PsV Neutralization 50% Titer | 97.2%<br>(97.2%, 97.2%) | 97.2%  |
|       |          |       |   | PsV Neutralization 80% Titer | 99.1%<br>(99.1%, 99.1%) | 99.1%  |

Neutralization Responders are defined as participants who had baseline values below the lower limit of quantification, neutralization titer above the assay LLOQ, or as participants with baseline values above the LLOQ with a 4-fold increase.

Binding Antibody Responders are defined as participants who had baseline values below the LLOQ with detectable antibody concentration, assay LLOQ, or as participants with baseline values above the LLOQ with a 4-fold increase in antibody concentration.

bAb LLOQ = 34; nAb ID50 LLOQ = 49; nAb ID80 LLOQ = 43

All calculations were weighted by the inverse probability sampling (IPS), defined based on the subcohort sampling strata.

2.0.3 Table 3. Geometric mean titers (GMTs) or geometric mean value of concentrations (GMCs)

Table 2.12: Table 3a. Geometric mean titers (GMTs) or geometric mean value of concentrations (GMCs) by All participants

| Group            | Baseline | Visit  | N    | Endpoint                     | GMT/GMC | 95  |
|------------------|----------|--------|------|------------------------------|---------|-----|
| All participants |          |        |      |                              |         |     |
| All participants | Negative | Day 1  | 1062 | Binding Antibody to RBD      | 17      | (1) |
|                  |          |        |      | Binding Antibody to Spike    | 17      | (1) |
|                  |          |        |      | PsV Neutralization 50% Titer | 24      | (2) |
|                  |          |        |      | PsV Neutralization 80% Titer | 22      | (2) |
|                  |          | Day 29 | 1062 | Binding Antibody to RBD      | 712     | (5) |
|                  |          |        |      | Binding Antibody to Spike    | 982     | (7) |
|                  |          |        |      | PsV Neutralization 50% Titer | 56      | (4) |
|                  |          |        |      | PsV Neutralization 80% Titer | 71      | (5) |
|                  |          | Day 57 | 1062 | Binding Antibody to RBD      | 4931    | (3) |
|                  |          |        |      | Binding Antibody to Spike    | 7432    | (5) |
|                  |          |        |      | PsV Neutralization 50% Titer | 225     | (1) |
|                  |          |        |      | PsV Neutralization 80% Titer | 263     | (2) |
|                  | Positive | Day 1  | 543  | Binding Antibody to RBD      | 17      | (1) |
|                  |          |        |      | Binding Antibody to Spike    | 17      | (1) |
|                  |          |        |      | PsV Neutralization 50% Titer | 24      | (2) |
|                  |          |        |      | PsV Neutralization 80% Titer | 22      | (2) |
|                  |          | Day 29 | 543  | Binding Antibody to RBD      | 22509   | (1) |
|                  |          |        |      | Binding Antibody to Spike    | 38829   | (1) |
|                  |          |        |      | PsV Neutralization 50% Titer | 114     | (6) |
|                  |          |        |      | PsV Neutralization 80% Titer | 229     | (1) |
|                  |          | Day 57 | 543  | Binding Antibody to RBD      | 1120836 | (5) |
|                  |          |        |      | Binding Antibody to Spike    | 2091817 | (1) |
|                  |          |        |      | PsV Neutralization 50% Titer | 1665    | (6) |
|                  |          |        |      | PsV Neutralization 80% Titer | 3728    | (2) |

bAb LLOQ = 34; nAb ID50 LLOQ = 49; nAb ID80 LLOQ = 43

All calculations were weighted by the inverse probability sampling (IPS), defined based on the subcohort sample.

Table 2.13: Table 3b. Geometric mean titers (GMTs) or geometric mean value of concentrations (GMCs) by Age

| Group           | Baseline | Visit  | N   | Endpoint                     | GMT/GMC | 95% CI        |
|-----------------|----------|--------|-----|------------------------------|---------|---------------|
| <b>Age</b>      |          |        |     |                              |         |               |
| Age $j \leq 65$ | Negative | Day 1  | 513 | Binding Antibody to RBD      | 17      | (17, 17)      |
|                 |          |        |     | Binding Antibody to Spike    | 17      | (17, 17)      |
|                 |          | Day 29 | 513 | PsV Neutralization 50% Titer | 24      | (24, 24)      |
|                 |          |        |     | PsV Neutralization 80% Titer | 22      | (22, 22)      |
|                 | Positive | Day 1  | 513 | Binding Antibody to RBD      | 621     | (585, 659)    |
|                 |          |        |     | Binding Antibody to Spike    | 865     | (807, 926)    |
|                 |          | Day 29 | 513 | PsV Neutralization 50% Titer | 50      | (48, 53)      |
|                 |          |        |     | PsV Neutralization 80% Titer | 65      | (60, 70)      |
|                 | Positive | Day 1  | 294 | Binding Antibody to RBD      | 4352    | (4139, 4577)  |
|                 |          |        |     | Binding Antibody to Spike    | 6696    | (6197, 7235)  |
|                 |          | Day 29 | 294 | PsV Neutralization 50% Titer | 196     | (184, 209)    |
|                 |          |        |     | PsV Neutralization 80% Titer | 237     | (215, 261)    |
| Age $i = 65$    | Negative | Day 1  | 549 | Binding Antibody to RBD      | 17      | (17, 17)      |
|                 |          |        |     | Binding Antibody to Spike    | 17      | (17, 17)      |
|                 |          | Day 29 | 549 | PsV Neutralization 50% Titer | 24      | (24, 24)      |
|                 |          |        |     | PsV Neutralization 80% Titer | 22      | (22, 22)      |
|                 | Positive | Day 1  | 549 | Binding Antibody to RBD      | 17189   | (16844, 175)  |
|                 |          |        |     | Binding Antibody to Spike    | 29915   | (28129, 318)  |
|                 |          | Day 29 | 549 | PsV Neutralization 50% Titer | 92      | (81, 105)     |
|                 |          |        |     | PsV Neutralization 80% Titer | 190     | (188, 193)    |
|                 | Positive | Day 1  | 249 | Binding Antibody to RBD      | 848266  | (817139, 880) |
|                 |          |        |     | Binding Antibody to Spike    | 1607999 | (1544200, 18) |
|                 |          | Day 29 | 249 | PsV Neutralization 50% Titer | 1174    | (1093, 1261)  |
|                 |          |        |     | PsV Neutralization 80% Titer | 2971    | (2943, 2998)  |

Table 2.13: Table 3b. Geometric mean titers (GMTs) or geometric mean value of concentrations (GMCs) by Age (continued)

| Group | Baseline | Visit  | N   | Endpoint                     | GMT/GMC | 95% CI Lower | 95% CI Upper |
|-------|----------|--------|-----|------------------------------|---------|--------------|--------------|
|       |          | Day 29 | 249 | Binding Antibody to RBD      | 67301   | (67,000)     | (67,000)     |
|       |          |        |     | Binding Antibody to Spike    | 112025  | (112,000)    | (112,000)    |
|       |          |        |     | PsV Neutralization 50% Titer | 265     | (26,000)     | (26,000)     |
|       |          |        |     | PsV Neutralization 80% Titer | 484     | (48,000)     | (48,000)     |
|       |          | Day 57 | 249 | Binding Antibody to RBD      | 3476290 | (347,6290)   | (347,6290)   |
|       |          |        |     | Binding Antibody to Spike    | 6089580 | (608,9580)   | (608,9580)   |
|       |          |        |     | PsV Neutralization 50% Titer | 6890    | (68,900)     | (68,900)     |
|       |          |        |     | PsV Neutralization 80% Titer | 9374    | (93,740)     | (93,740)     |

bAb LLOQ = 34; nAb ID50 LLOQ = 49; nAb ID80 LLOQ = 43

All calculations were weighted by the inverse probability sampling (IPS), defined based on the subcohort sample.

Table 2.14: Table 3c. Geometric mean titers (GMTs) or geometric mean value of concentrations (GMCs) by Risk for Severe Covid-19

| Group                    | Baseline | Visit  | N   | Endpoint                     | GMT/GMC | 95% CI         |
|--------------------------|----------|--------|-----|------------------------------|---------|----------------|
| Risk for Severe Covid-19 |          |        |     |                              |         |                |
| At-risk                  | Negative | Day 1  | 541 | Binding Antibody to RBD      | 17      | (17, 17)       |
|                          |          |        |     | Binding Antibody to Spike    | 17      | (17, 17)       |
|                          |          | Day 29 | 541 | PsV Neutralization 50% Titer | 24      | (24, 24)       |
|                          |          |        |     | PsV Neutralization 80% Titer | 22      | (22, 22)       |
|                          | Positive | Day 1  | 541 | Binding Antibody to RBD      | 778     | (411, 1471)    |
|                          |          |        |     | Binding Antibody to Spike    | 1068    | (564, 2022)    |
|                          |          | Day 29 | 541 | PsV Neutralization 50% Titer | 59      | (38, 91)       |
|                          |          |        |     | PsV Neutralization 80% Titer | 72      | (46, 112)      |
|                          | Positive | Day 1  | 246 | Binding Antibody to RBD      | 5533    | (2908, 1052)   |
|                          |          |        |     | Binding Antibody to Spike    | 8028    | (4405, 1463)   |
|                          |          | Day 29 | 246 | PsV Neutralization 50% Titer | 235     | (134, 411)     |
|                          |          |        |     | PsV Neutralization 80% Titer | 274     | (153, 490)     |
| Not at-risk              | Negative | Day 1  | 246 | Binding Antibody to RBD      | 17      | (17, 17)       |
|                          |          |        |     | Binding Antibody to Spike    | 17      | (17, 17)       |
|                          |          | Day 29 | 246 | PsV Neutralization 50% Titer | 24      | (24, 24)       |
|                          |          |        |     | PsV Neutralization 80% Titer | 21      | (21, 22)       |
|                          | Positive | Day 1  | 246 | Binding Antibody to RBD      | 25128   | (9811, 6435)   |
|                          |          |        |     | Binding Antibody to Spike    | 46636   | (20642, 1055)  |
|                          |          | Day 29 | 246 | PsV Neutralization 50% Titer | 139     | (83, 234)      |
|                          |          |        |     | PsV Neutralization 80% Titer | 252     | (138, 461)     |
|                          | Positive | Day 1  | 246 | Binding Antibody to RBD      | 1379449 | (511168, 375)  |
|                          |          |        |     | Binding Antibody to Spike    | 2471668 | (1053363, 575) |
|                          |          | Day 29 | 246 | PsV Neutralization 50% Titer | 2118    | (693, 6480)    |
|                          |          |        |     | PsV Neutralization 80% Titer | 4084    | (1906, 8751)   |

Table 2.14: Table 3c. Geometric mean titers (GMTs) or geometric mean value of concentrations (GMCs) by Risk for Severe Covid-19 (continued)

| Group | Baseline | Visit | N                            | Endpoint | GMT/GMC | 95% |
|-------|----------|-------|------------------------------|----------|---------|-----|
|       | Day 29   | 297   | Binding Antibody to RBD      | 21738    | (11)    |     |
|       |          |       | Binding Antibody to Spike    | 36642    | (19)    |     |
|       |          |       | PsV Neutralization 50% Titer | 106      | (61)    |     |
|       |          |       | PsV Neutralization 80% Titer | 222      | (14)    |     |
|       | Day 57   | 297   | Binding Antibody to RBD      | 1049555  | (54)    |     |
|       |          |       | Binding Antibody to Spike    | 1984211  | (10)    |     |
|       |          |       | PsV Neutralization 50% Titer | 1543     | (65)    |     |
|       |          |       | PsV Neutralization 80% Titer | 3622     | (20)    |     |

bAb LLOQ = 34; nAb ID50 LLOQ = 49; nAb ID80 LLOQ = 43

All calculations were weighted by the inverse probability sampling (IPS), defined based on the subcohort sample.

Table 2.15: Table 3d. Geometric mean titers (GMTs) or geometric mean value of concentrations (GMCs) by Age, Risk for Severe Covid-19

| Group                         | Baseline | Visit  | N   | Endpoint                     | GMT/GMC | 95% CI             |
|-------------------------------|----------|--------|-----|------------------------------|---------|--------------------|
| Age, Risk for Severe Covid-19 |          |        |     |                              |         |                    |
| Age $\geq$ 65 At-risk         |          |        |     | Binding Antibody to RBD      | 17      | (17, 17)           |
|                               | Negative | Day 1  | 257 | Binding Antibody to Spike    | 17      | (17, 17)           |
|                               |          |        |     | PsV Neutralization 50% Titer | 24      | (24, 24)           |
|                               |          |        |     | PsV Neutralization 80% Titer | 21      | (21, 22)           |
|                               |          | Day 29 | 257 | Binding Antibody to RBD      | 572     | (572, 572)         |
|                               |          |        |     | Binding Antibody to Spike    | 786     | (786, 786)         |
|                               |          |        |     | PsV Neutralization 50% Titer | 48      | (48, 48)           |
|                               |          |        |     | PsV Neutralization 80% Titer | 58      | (58, 58)           |
|                               |          | Day 57 | 257 | Binding Antibody to RBD      | 4058    | (4058, 4058)       |
|                               |          |        |     | Binding Antibody to Spike    | 6011    | (6011, 6011)       |
|                               |          |        |     | PsV Neutralization 50% Titer | 180     | (180, 180)         |
|                               |          |        |     | PsV Neutralization 80% Titer | 207     | (207, 207)         |
|                               | Positive | Day 1  | 148 | Binding Antibody to RBD      | 17      | (17, 17)           |
|                               |          |        |     | Binding Antibody to Spike    | 17      | (17, 17)           |
|                               |          |        |     | PsV Neutralization 50% Titer | 24      | (24, 24)           |
|                               |          |        |     | PsV Neutralization 80% Titer | 21      | (21, 22)           |
|                               |          | Day 29 | 148 | Binding Antibody to RBD      | 16690   | (16690, 16690)     |
|                               |          |        |     | Binding Antibody to Spike    | 32712   | (32712, 32712)     |
|                               |          |        |     | PsV Neutralization 50% Titer | 111     | (111, 111)         |
|                               |          |        |     | PsV Neutralization 80% Titer | 194     | (194, 194)         |
|                               |          | Day 57 | 148 | Binding Antibody to RBD      | 895596  | (895596, 895596)   |
|                               |          |        |     | Binding Antibody to Spike    | 1705379 | (1705379, 1705379) |
|                               |          |        |     | PsV Neutralization 50% Titer | 1302    | (1302, 1302)       |
|                               |          |        |     | PsV Neutralization 80% Titer | 2931    | (2931, 2931)       |
| Age $<$ 65 Not at-risk        | Negative | Day 1  | 256 | Binding Antibody to RBD      | 17      | (17, 17)           |
|                               |          |        |     | Binding Antibody to Spike    | 17      | (17, 17)           |
|                               |          |        |     | PsV Neutralization 50% Titer | 25      | (24, 25)           |
|                               |          |        |     | PsV Neutralization 80% Titer | 22      | (22, 22)           |
|                               |          | Day 29 | 256 | Binding Antibody to RBD      | 635     | (635, 635)         |
|                               |          |        |     | Binding Antibody to Spike    | 887     | (887, 887)         |
|                               |          |        |     | PsV Neutralization 50% Titer | 51      | (51, 51)           |
|                               |          |        |     | PsV Neutralization 80% Titer | 67      | (67, 67)           |
|                               |          | Day 57 | 256 | Binding Antibody to RBD      | 4435    | (4435, 4435)       |
|                               |          |        |     | Binding Antibody to Spike    | 6892    | (6892, 6892)       |
|                               |          |        |     | PsV Neutralization 50% Titer | 201     | (201, 201)         |
|                               |          |        |     | PsV Neutralization 80% Titer | 246     | (246, 246)         |
|                               | Positive | Day 1  | 146 | Binding Antibody to RBD      | 17      | (17, 17)           |
|                               |          |        |     | Binding Antibody to Spike    | 17      | (17, 17)           |
|                               |          |        |     | PsV Neutralization 50% Titer | 24      | (24, 25)           |
|                               |          |        |     | PsV Neutralization 80% Titer | 21      | (21, 22)           |

Table 2.15: Table 3d. Geometric mean titers (GMTs) or geometric mean value of concentrations (GMCs) by Age, Risk for Severe Covid-19 (continued)

| Group                    | Baseline | Visit  | N   | Endpoint                     | GMT/GMC | 95%       |
|--------------------------|----------|--------|-----|------------------------------|---------|-----------|
| Age $i = 65$ At-risk     | Negative | Day 29 | 146 | Binding Antibody to RBD      | 17319   | (17)      |
|                          |          |        |     | Binding Antibody to Spike    | 29242   | (29)      |
|                          |          |        |     | PsV Neutralization 50% Titer | 88      | (88)      |
|                          |          |        |     | PsV Neutralization 80% Titer | 189     | (189)     |
|                          |          | Day 57 | 146 | Binding Antibody to RBD      | 836628  | (836628)  |
|                          |          |        |     | Binding Antibody to Spike    | 1584123 | (1584123) |
|                          | Positive | Day 1  | 284 | PsV Neutralization 50% Titer | 1143    | (1143)    |
|                          |          |        |     | PsV Neutralization 80% Titer | 2981    | (2981)    |
|                          |          | Day 29 | 284 | Binding Antibody to RBD      | 17      | (17)      |
|                          |          |        |     | Binding Antibody to Spike    | 17      | (17)      |
|                          |          | Day 57 | 284 | PsV Neutralization 50% Titer | 24      | (24)      |
|                          |          |        |     | PsV Neutralization 80% Titer | 22      | (22)      |
| Age $i = 65$ Not at-risk | Negative | Day 1  | 98  | Binding Antibody to RBD      | 1260    | (1260)    |
|                          |          |        |     | Binding Antibody to Spike    | 1733    | (1733)    |
|                          |          | Day 29 | 98  | PsV Neutralization 50% Titer | 82      | (82)      |
|                          |          |        |     | PsV Neutralization 80% Titer | 100     | (100)     |
|                          |          | Day 57 | 98  | Binding Antibody to RBD      | 9007    | (9007)    |
|                          |          |        |     | Binding Antibody to Spike    | 12651   | (12651)   |
|                          | Positive | Day 1  | 98  | PsV Neutralization 50% Titer | 359     | (359)     |
|                          |          |        |     | PsV Neutralization 80% Titer | 425     | (425)     |
|                          |          | Day 29 | 98  | Binding Antibody to RBD      | 17      | (17)      |
|                          |          |        |     | Binding Antibody to Spike    | 17      | (17)      |
|                          |          | Day 57 | 98  | PsV Neutralization 50% Titer | 24      | (24)      |
|                          |          |        |     | PsV Neutralization 80% Titer | 22      | (22)      |
| Age $i = 65$ Not at-risk | Negative | Day 1  | 265 | Binding Antibody to RBD      | 59244   | (59244)   |
|                          |          |        |     | Binding Antibody to Spike    | 98073   | (98073)   |
|                          |          | Day 29 | 265 | PsV Neutralization 50% Titer | 223     | (223)     |
|                          |          |        |     | PsV Neutralization 80% Titer | 437     | (437)     |
|                          |          | Day 57 | 265 | Binding Antibody to RBD      | 3411234 | (3411234) |
|                          |          |        |     | Binding Antibody to Spike    | 5380342 | (5380342) |
|                          | Positive | Day 1  | 265 | PsV Neutralization 50% Titer | 5873    | (5873)    |
|                          |          |        |     | PsV Neutralization 80% Titer | 8184    | (8184)    |
|                          |          | Day 29 | 265 | Binding Antibody to RBD      | 17      | (17)      |
|                          |          |        |     | Binding Antibody to Spike    | 17      | (17)      |
|                          |          | Day 57 | 265 | PsV Neutralization 50% Titer | 24      | (24)      |
|                          |          |        |     | PsV Neutralization 80% Titer | 22      | (22)      |

Table 2.15: Table 3d. Geometric mean titers (GMTs) or geometric mean value of concentrations (GMCs) by Age, Risk for Severe Covid-19 (continued)

| Group    | Baseline | Visit | N                            | Endpoint | GMT/GMC            | 95% CI |
|----------|----------|-------|------------------------------|----------|--------------------|--------|
| Positive | Day 1    | 151   | PsV Neutralization 50% Titer | 385      | (385, 385)         |        |
|          |          |       | PsV Neutralization 80% Titer | 343      | (343, 343)         |        |
|          |          |       | Binding Antibody to RBD      | 17       | (17, 17)           |        |
|          |          |       | Binding Antibody to Spike    | 17       | (17, 17)           |        |
|          |          |       | PsV Neutralization 50% Titer | 24       | (24, 24)           |        |
|          |          |       | PsV Neutralization 80% Titer | 22       | (22, 22)           |        |
|          | Day 29   | 151   | Binding Antibody to RBD      | 73095    | (73095, 73095)     |        |
|          |          |       | Binding Antibody to Spike    | 122104   | (122104, 122104)   |        |
|          |          |       | PsV Neutralization 50% Titer | 296      | (296, 296)         |        |
|          | Day 57   | 151   | PsV Neutralization 80% Titer | 518      | (518, 518)         |        |
|          |          |       | Binding Antibody to RBD      | 3519087  | (3519087, 3519087) |        |
|          |          |       | Binding Antibody to Spike    | 6598095  | (6598095, 6598095) |        |
|          |          |       | PsV Neutralization 50% Titer | 7640     | (7640, 7640)       |        |
|          |          |       | PsV Neutralization 80% Titer | 10236    | (10236, 10236)     |        |

bAb LLOQ = 34; nAb ID50 LLOQ = 49; nAb ID80 LLOQ = 43

All calculations were weighted by the inverse probability sampling (IPS), defined based on the subcohort sampling strata.

Table 2.16: Table 3e. Geometric mean titers (GMTs) or geometric mean value of concentrations (GMCs) by Sex

| Group  |          | Baseline | Visit                        | N                            | Endpoint | GMT/GMC | 95% |  |  |
|--------|----------|----------|------------------------------|------------------------------|----------|---------|-----|--|--|
| Sex    |          |          |                              |                              |          |         |     |  |  |
| Female | Negative | Day 1    | 597                          | Binding Antibody to RBD      | 17       | (17)    |     |  |  |
|        |          |          |                              | Binding Antibody to Spike    | 17       | (17)    |     |  |  |
|        |          |          |                              | PsV Neutralization 50% Titer | 24       | (24)    |     |  |  |
|        |          | Day 29   | 597                          | PsV Neutralization 80% Titer | 22       | (22)    |     |  |  |
|        |          |          |                              | Binding Antibody to RBD      | 712      | (44)    |     |  |  |
|        |          |          |                              | Binding Antibody to Spike    | 1038     | (66)    |     |  |  |
|        | Positive | Day 57   | 597                          | PsV Neutralization 50% Titer | 56       | (42)    |     |  |  |
|        |          |          |                              | PsV Neutralization 80% Titer | 71       | (55)    |     |  |  |
|        |          |          |                              | Binding Antibody to RBD      | 5346     | (33)    |     |  |  |
|        |          | Day 29   | 298                          | Binding Antibody to Spike    | 7938     | (50)    |     |  |  |
|        |          |          |                              | PsV Neutralization 50% Titer | 218      | (14)    |     |  |  |
|        |          |          |                              | PsV Neutralization 80% Titer | 271      | (19)    |     |  |  |
| Male   | Negative | Day 1    | 465                          | Binding Antibody to RBD      | 17       | (17)    |     |  |  |
|        |          |          |                              | Binding Antibody to Spike    | 17       | (17)    |     |  |  |
|        |          |          |                              | PsV Neutralization 50% Titer | 24       | (24)    |     |  |  |
|        |          | Day 29   | 465                          | PsV Neutralization 80% Titer | 21       | (21)    |     |  |  |
|        | Positive |          |                              | Binding Antibody to RBD      | 21334    | (11)    |     |  |  |
|        |          |          |                              | Binding Antibody to Spike    | 35333    | (18)    |     |  |  |
|        |          |          |                              | PsV Neutralization 50% Titer | 114      | (75)    |     |  |  |
|        | Day 57   | 465      | PsV Neutralization 80% Titer | 232                          | (17)     |         |     |  |  |
|        |          |          | Binding Antibody to RBD      | 1087218                      | (56)     |         |     |  |  |
|        |          |          | Binding Antibody to Spike    | 2053878                      | (11)     |         |     |  |  |
|        |          |          | PsV Neutralization 50% Titer | 1624                         | (70)     |         |     |  |  |
|        |          |          | PsV Neutralization 80% Titer | 3631                         | (21)     |         |     |  |  |

Table 2.16: Table 3e. Geometric mean titers (GMTs) or geometric mean value of concentrations (GMCs) by Sex (continued)

| Group | Baseline | Visit  | N   | Endpoint                     | GMT/GMC | 95% CI            |
|-------|----------|--------|-----|------------------------------|---------|-------------------|
|       |          | Day 29 | 245 | Binding Antibody to RBD      | 24161   | (11946, 48800)    |
|       |          |        |     | Binding Antibody to Spike    | 43983   | (21721, 89000)    |
|       |          |        |     | PsV Neutralization 50% Titer | 112     | (52, 245)         |
|       |          |        |     | PsV Neutralization 80% Titer | 225     | (109, 464)        |
|       |          | Day 57 | 245 | Binding Antibody to RBD      | 1166837 | (528077, 250000)  |
|       |          |        |     | Binding Antibody to Spike    | 2143002 | (1014552, 480000) |
|       |          |        |     | PsV Neutralization 50% Titer | 1722    | (620, 4779)       |
|       |          |        |     | PsV Neutralization 80% Titer | 3859    | (1838, 8103)      |

bAb LLOQ = 34; nAb ID50 LLOQ = 49; nAb ID80 LLOQ = 43

All calculations were weighted by the inverse probability sampling (IPS), defined based on the subcohort sampling strata.

Table 2.17: Table 3f. Geometric mean titers (GMTs) or geometric mean value of concentrations (GMCs) by Age, sex

| Group           | Baseline | Visit  | N   | Endpoint                     | GMT/GMC | 95%  |
|-----------------|----------|--------|-----|------------------------------|---------|------|
| Age, sex        |          |        |     |                              |         |      |
| Age ≥ 65 Female |          |        |     |                              |         |      |
|                 | Negative | Day 1  | 291 | Binding Antibody to RBD      | 17      | (17) |
|                 |          |        |     | Binding Antibody to Spike    | 17      | (17) |
|                 |          |        |     | PsV Neutralization 50% Titer | 24      | (24) |
|                 |          |        |     | PsV Neutralization 80% Titer | 22      | (22) |
|                 |          | Day 29 | 291 | Binding Antibody to RBD      | 582     | (49) |
|                 |          |        |     | Binding Antibody to Spike    | 860     | (69) |
|                 |          |        |     | PsV Neutralization 50% Titer | 49      | (45) |
|                 |          |        |     | PsV Neutralization 80% Titer | 63      | (57) |
|                 |          | Day 57 | 291 | Binding Antibody to RBD      | 4372    | (34) |
|                 |          |        |     | Binding Antibody to Spike    | 6537    | (51) |
|                 |          |        |     | PsV Neutralization 50% Titer | 181     | (16) |
|                 |          |        |     | PsV Neutralization 80% Titer | 236     | (20) |
|                 | Positive | Day 1  | 166 | Binding Antibody to RBD      | 17      | (17) |
|                 |          |        |     | Binding Antibody to Spike    | 17      | (17) |
|                 |          |        |     | PsV Neutralization 50% Titer | 24      | (24) |
|                 |          |        |     | PsV Neutralization 80% Titer | 22      | (22) |
|                 |          | Day 29 | 166 | Binding Antibody to RBD      | 16489   | (15) |
|                 |          |        |     | Binding Antibody to Spike    | 27584   | (27) |
|                 |          |        |     | PsV Neutralization 50% Titer | 97      | (95) |
|                 |          |        |     | PsV Neutralization 80% Titer | 206     | (18) |
|                 |          | Day 57 | 166 | Binding Antibody to RBD      | 829179  | (71) |
|                 |          |        |     | Binding Antibody to Spike    | 1596315 | (14) |
|                 |          |        |     | PsV Neutralization 50% Titer | 1152    | (95) |
|                 |          |        |     | PsV Neutralization 80% Titer | 2917    | (21) |
| Age < 65 Male   |          |        |     | Binding Antibody to RBD      | 17      | (17) |
|                 | Negative | Day 1  | 222 | Binding Antibody to Spike    | 17      | (17) |
|                 |          |        |     | PsV Neutralization 50% Titer | 24      | (24) |
|                 |          |        |     | PsV Neutralization 80% Titer | 22      | (22) |
|                 |          | Day 29 | 222 | Binding Antibody to RBD      | 676     | (61) |
|                 |          |        |     | Binding Antibody to Spike    | 871     | (77) |
|                 |          |        |     | PsV Neutralization 50% Titer | 52      | (50) |
|                 |          |        |     | PsV Neutralization 80% Titer | 67      | (64) |
|                 |          | Day 57 | 222 | Binding Antibody to RBD      | 4327    | (36) |
|                 |          |        |     | Binding Antibody to Spike    | 6909    | (59) |
|                 |          |        |     | PsV Neutralization 50% Titer | 217     | (21) |
|                 |          |        |     | PsV Neutralization 80% Titer | 238     | (22) |
|                 | Positive | Day 1  | 128 | Binding Antibody to RBD      | 17      | (17) |
|                 |          |        |     | Binding Antibody to Spike    | 17      | (17) |
|                 |          |        |     | PsV Neutralization 50% Titer | 24      | (24) |
|                 |          |        |     | PsV Neutralization 80% Titer | 22      | (22) |

Table 2.17: Table 3f. Geometric mean titers (GMTs) or geometric mean value of concentrations (GMCs) by Age, sex (continued)

| Group               | Baseline | Visit  | N   | Endpoint                     | GMT/GMC | 95% CI             |
|---------------------|----------|--------|-----|------------------------------|---------|--------------------|
| Age $i = 65$ Female | Negative | Day 29 | 128 | Binding Antibody to RBD      | 18199   | (17074, 19383)     |
|                     |          |        |     | Binding Antibody to Spike    | 33432   | (29168, 38332)     |
|                     |          | Day 57 | 128 | PsV Neutralization 50% Titer | 86      | (61, 122)          |
|                     |          |        |     | PsV Neutralization 80% Titer | 171     | (144, 204)         |
|                     |          | Day 1  | 306 | Binding Antibody to RBD      | 875142  | (661880, 1157142)  |
|                     |          |        |     | Binding Antibody to Spike    | 1624152 | (1290202, 2048152) |
|                     | Positive | Day 29 | 306 | PsV Neutralization 50% Titer | 1205    | (785, 1850)        |
|                     |          |        |     | PsV Neutralization 80% Titer | 3046    | (2012, 4611)       |
|                     |          | Day 57 | 306 | Binding Antibody to RBD      | 17      | (17, 17)           |
|                     |          |        |     | Binding Antibody to Spike    | 17      | (17, 17)           |
|                     |          | Day 1  | 132 | PsV Neutralization 50% Titer | 24      | (24, 24)           |
|                     |          |        |     | PsV Neutralization 80% Titer | 22      | (22, 22)           |
| Age $i = 65$ Male   | Negative | Day 29 | 306 | Binding Antibody to RBD      | 1557    | (1557, 1557)       |
|                     |          |        |     | Binding Antibody to Spike    | 2159    | (2159, 2159)       |
|                     |          | Day 57 | 306 | PsV Neutralization 50% Titer | 91      | (91, 91)           |
|                     |          |        |     | PsV Neutralization 80% Titer | 109     | (109, 109)         |
|                     |          | Day 1  | 132 | Binding Antibody to RBD      | 11651   | (11651, 11651)     |
|                     |          |        |     | Binding Antibody to Spike    | 16857   | (16857, 16857)     |
|                     | Positive | Day 29 | 132 | PsV Neutralization 50% Titer | 449     | (449, 449)         |
|                     |          |        |     | PsV Neutralization 80% Titer | 459     | (459, 459)         |
|                     |          | Day 57 | 132 | Binding Antibody to RBD      | 17      | (17, 17)           |
|                     |          |        |     | Binding Antibody to Spike    | 17      | (17, 17)           |
|                     |          | Day 1  | 243 | PsV Neutralization 50% Titer | 25      | (24, 25)           |
|                     |          |        |     | PsV Neutralization 80% Titer | 22      | (22, 22)           |
|                     | Male     | Day 29 | 132 | Binding Antibody to RBD      | 66473   | (66473, 66473)     |
|                     |          |        |     | Binding Antibody to Spike    | 105315  | (105315, 105315)   |
|                     |          | Day 57 | 132 | PsV Neutralization 50% Titer | 238     | (238, 238)         |
|                     |          |        |     | PsV Neutralization 80% Titer | 391     | (391, 391)         |
|                     |          | Day 1  | 243 | Binding Antibody to RBD      | 3592671 | (3592671, 3592671) |
|                     |          |        |     | Binding Antibody to Spike    | 6243753 | (6243753, 6243753) |
|                     |          | Day 29 | 243 | PsV Neutralization 50% Titer | 7379    | (7379, 7379)       |
|                     |          |        |     | PsV Neutralization 80% Titer | 9539    | (9539, 9539)       |
|                     |          | Day 57 | 243 | Binding Antibody to RBD      | 17      | (17, 17)           |
|                     |          |        |     | Binding Antibody to Spike    | 17      | (17, 17)           |
|                     |          | Day 1  | 243 | PsV Neutralization 50% Titer | 24      | (24, 24)           |
|                     |          |        |     | PsV Neutralization 80% Titer | 22      | (22, 22)           |
|                     |          | Day 29 | 243 | Binding Antibody to RBD      | 846     | (846, 846)         |
|                     |          |        |     | Binding Antibody to Spike    | 1076    | (1076, 1076)       |
|                     |          | Day 57 | 243 | PsV Neutralization 50% Titer | 79      | (79, 79)           |
|                     |          |        |     | PsV Neutralization 80% Titer | 94      | (94, 94)           |
|                     |          | Day 1  | 243 | Binding Antibody to RBD      | 4908    | (4908, 4908)       |
|                     |          |        |     | Binding Antibody to Spike    | 6613    | (6613, 6613)       |

Table 2.17: Table 3f. Geometric mean titers (GMTs) or geometric mean value of concentrations (GMCs) by Age, sex (continued)

| Group    | Baseline | Visit | N                            | Endpoint | GMT/GMC   | 95% |
|----------|----------|-------|------------------------------|----------|-----------|-----|
| Positive | Day 1    | 117   | PsV Neutralization 50% Titer | 301      | (301)     |     |
|          |          |       | PsV Neutralization 80% Titer | 309      | (309)     |     |
|          |          |       | Binding Antibody to RBD      | 17       | (17)      |     |
|          |          |       | Binding Antibody to Spike    | 17       | (17)      |     |
|          |          |       | PsV Neutralization 50% Titer | 24       | (24)      |     |
|          |          |       | PsV Neutralization 80% Titer | 22       | (22)      |     |
|          | Day 29   | 117   | Binding Antibody to RBD      | 68256    | (68256)   |     |
|          |          |       | Binding Antibody to Spike    | 120187   | (120187)  |     |
|          |          |       | PsV Neutralization 50% Titer | 300      | (300)     |     |
|          | Day 57   | 117   | PsV Neutralization 80% Titer | 618      | (618)     |     |
|          |          |       | Binding Antibody to RBD      | 3348376  | (3348376) |     |
|          |          |       | Binding Antibody to Spike    | 5918688  | (5918688) |     |
|          |          |       | PsV Neutralization 50% Titer | 6372     | (6372)    |     |
|          |          |       | PsV Neutralization 80% Titer | 9190     | (9190)    |     |

bAb LLOQ = 34; nAb ID50 LLOQ = 49; nAb ID80 LLOQ = 43

All calculations were weighted by the inverse probability sampling (IPS), defined based on the subcohort sample.

Table 2.18: Table 3g. Geometric mean titers (GMTs) or geometric mean value of concentrations (GMCs) by Hispanic or Latino ethnicity

| Group                        | Baseline | Visit | N   | Endpoint                     | GMT/GMC | 95% CI       |
|------------------------------|----------|-------|-----|------------------------------|---------|--------------|
| Hispanic or Latino ethnicity |          |       |     |                              |         |              |
| Hispanic or Latino           | Negative | Day 1 | 125 | Binding Antibody to RBD      | 17      | (17, 17)     |
|                              |          |       |     | Binding Antibody to Spike    | 17      | (17, 17)     |
|                              |          |       |     | PsV Neutralization 50% Titer | 24      | (24, 24)     |
|                              |          |       |     | PsV Neutralization 80% Titer | 22      | (22, 22)     |
|                              | Day 29   | 125   | 125 | Binding Antibody to RBD      | 468     | (143, 1532)  |
|                              |          |       |     | Binding Antibody to Spike    | 640     | (202, 2027)  |
|                              |          |       |     | PsV Neutralization 50% Titer | 49      | (29, 82)     |
|                              |          |       |     | PsV Neutralization 80% Titer | 60      | (38, 93)     |
|                              | Day 57   | 125   | 125 | Binding Antibody to RBD      | 2630    | (611, 11319) |
|                              |          |       |     | Binding Antibody to Spike    | 3871    | (887, 16897) |
|                              |          |       |     | PsV Neutralization 50% Titer | 181     | (80, 409)    |
|                              |          |       |     | PsV Neutralization 80% Titer | 161     | (60, 433)    |
| Not Hispanic or Latino       | Positive | Day 1 | 77  | Binding Antibody to RBD      | 17      | (17, 17)     |
|                              |          |       |     | Binding Antibody to Spike    | 17      | (17, 17)     |
|                              |          |       |     | PsV Neutralization 50% Titer | 24      | (24, 24)     |
|                              |          |       |     | PsV Neutralization 80% Titer | 22      | (22, 22)     |
|                              | Day 29   | 77    | 77  | Binding Antibody to RBD      | 25213   | (15602, 407) |
|                              |          |       |     | Binding Antibody to Spike    | 40456   | (26282, 622) |
|                              |          |       |     | PsV Neutralization 50% Titer | 116     | (74, 180)    |
|                              |          |       |     | PsV Neutralization 80% Titer | 195     | (127, 299)   |
|                              | Day 57   | 77    | 77  | Binding Antibody to RBD      | 1404743 | (886268, 22) |
|                              |          |       |     | Binding Antibody to Spike    | 2250797 | (1632173, 3) |
|                              |          |       |     | PsV Neutralization 50% Titer | 1802    | (821, 3955)  |
|                              |          |       |     | PsV Neutralization 80% Titer | 3289    | (2051, 5275) |
| Not Hispanic or Latino       | Negative | Day 1 | 844 | Binding Antibody to RBD      | 17      | (17, 17)     |
|                              |          |       |     | Binding Antibody to Spike    | 17      | (17, 17)     |
|                              |          |       |     | PsV Neutralization 50% Titer | 24      | (24, 24)     |
|                              |          |       |     | PsV Neutralization 80% Titer | 21      | (21, 22)     |
|                              | Day 29   | 844   | 844 | Binding Antibody to RBD      | 833     | (562, 1234)  |
|                              |          |       |     | Binding Antibody to Spike    | 1155    | (769, 1733)  |
|                              |          |       |     | PsV Neutralization 50% Titer | 59      | (45, 76)     |
|                              |          |       |     | PsV Neutralization 80% Titer | 75      | (59, 94)     |
|                              | Day 57   | 844   | 844 | Binding Antibody to RBD      | 6206    | (3849, 1000) |
|                              |          |       |     | Binding Antibody to Spike    | 9278    | (5609, 1534) |
|                              |          |       |     | PsV Neutralization 50% Titer | 247     | (179, 341)   |
|                              |          |       |     | PsV Neutralization 80% Titer | 303     | (222, 413)   |
| Positive                     | Day 1    | 406   | 406 | Binding Antibody to RBD      | 17      | (17, 17)     |
|                              |          |       |     | Binding Antibody to Spike    | 17      | (17, 17)     |
|                              |          |       |     | PsV Neutralization 50% Titer | 24      | (24, 24)     |
|                              |          |       |     | PsV Neutralization 80% Titer | 22      | (22, 22)     |

Table 2.18: Table 3g. Geometric mean titers (GMTs) or geometric mean value of concentrations (GMCs) by Hispanic or Latino ethnicity (continued)

| Group                    | Baseline | Visit  | N   | Endpoint                     | GMT/GMC | 95%  |
|--------------------------|----------|--------|-----|------------------------------|---------|------|
| Not reported and unknown | Negative | Day 29 | 406 | Binding Antibody to RBD      | 22503   | (11) |
|                          |          |        |     | Binding Antibody to Spike    | 40053   | (19) |
|                          |          | Day 57 | 406 | PsV Neutralization 50% Titer | 117     | (66) |
|                          |          |        |     | PsV Neutralization 80% Titer | 234     | (14) |
|                          | Positive | Day 1  | 93  | Binding Antibody to RBD      | 1125831 | (53) |
|                          |          |        |     | Binding Antibody to Spike    | 2007106 | (94) |
|                          |          | Day 29 | 93  | PsV Neutralization 50% Titer | 1735    | (71) |
|                          |          |        |     | PsV Neutralization 80% Titer | 4085    | (24) |
|                          |          | Day 57 | 93  | Binding Antibody to RBD      | 17      | (17) |
|                          |          |        |     | Binding Antibody to Spike    | 17      | (17) |
|                          |          |        |     | PsV Neutralization 50% Titer | 24      | (24) |
|                          |          |        |     | PsV Neutralization 80% Titer | 21      | (21) |
|                          |          | Day 1  | 60  | Binding Antibody to RBD      | 345     | (12) |
|                          |          |        |     | Binding Antibody to Spike    | 461     | (15) |
|                          |          |        |     | PsV Neutralization 50% Titer | 50      | (39) |
|                          |          |        |     | PsV Neutralization 80% Titer | 62      | (44) |
|                          |          | Day 29 | 60  | Binding Antibody to RBD      | 1730    | (34) |
|                          |          |        |     | Binding Antibody to Spike    | 2841    | (55) |
|                          |          |        |     | PsV Neutralization 50% Titer | 144     | (74) |
|                          |          |        |     | PsV Neutralization 80% Titer | 152     | (74) |
|                          |          | Day 57 | 60  | Binding Antibody to RBD      | 17      | (17) |
|                          |          |        |     | Binding Antibody to Spike    | 17      | (17) |
|                          |          |        |     | PsV Neutralization 50% Titer | 24      | (24) |
|                          |          |        |     | PsV Neutralization 80% Titer | 22      | (22) |
|                          |          | Day 1  | 60  | Binding Antibody to RBD      | 18882   | (77) |
|                          |          |        |     | Binding Antibody to Spike    | 29386   | (10) |
|                          |          |        |     | PsV Neutralization 50% Titer | 89      | (43) |
|                          |          |        |     | PsV Neutralization 80% Titer | 252     | (15) |
|                          |          | Day 29 | 60  | Binding Antibody to RBD      | 763268  | (19) |
|                          |          |        |     | Binding Antibody to Spike    | 2481988 | (11) |
|                          |          |        |     | PsV Neutralization 50% Titer | 1106    | (32) |
|                          |          |        |     | PsV Neutralization 80% Titer | 2409    | (74) |

bAb LLOQ = 34; nAb ID50 LLOQ = 49; nAb ID80 LLOQ = 43

All calculations were weighted by the inverse probability sampling (IPS), defined based on the subcohort sample.

Table 2.19: Table 3h. Geometric mean titers (GMTs) or geometric mean value of concentrations (GMCs) by Race

| Group                            | Baseline | Visit  | N  | Endpoint   | GMT/GMC                            | 95% CI   |
|----------------------------------|----------|--------|----|--|------------------------------------|--|
| <b>Race</b>                      |          |        |    |  |                                    |  |
| Not reported and unknown         | Negative | Day 1  | 98 | Binding Antibody to RBD<br>Binding Antibody to Spike<br>PsV Neutralization 50% Titer<br>PsV Neutralization 80% Titer | 17<br>17<br>24<br>22               | (17, 17)<br>(17, 17)<br>(24, 24)<br>(22, 22)                     |
|                                  |          | Day 29 | 98 | Binding Antibody to RBD<br>Binding Antibody to Spike<br>PsV Neutralization 50% Titer<br>PsV Neutralization 80% Titer | 585<br>878<br>53<br>73             | (367, 933)<br>(496, 1554)<br>(41, 69)<br>(57, 93)                |
|                                  |          | Day 57 | 98 | Binding Antibody to RBD<br>Binding Antibody to Spike<br>PsV Neutralization 50% Titer<br>PsV Neutralization 80% Titer | 4062<br>5229<br>230<br>283         | (2011, 8207)<br>(2524, 10833)<br>(149, 353)<br>(162, 495)        |
|                                  | Positive | Day 1  | 48 | Binding Antibody to RBD<br>Binding Antibody to Spike<br>PsV Neutralization 50% Titer<br>PsV Neutralization 80% Titer | 17<br>17<br>24<br>22               | (17, 17)<br>(17, 17)<br>(24, 24)<br>(22, 22)                     |
|                                  |          | Day 29 | 48 | Binding Antibody to RBD<br>Binding Antibody to Spike<br>PsV Neutralization 50% Titer<br>PsV Neutralization 80% Titer | 24907<br>48753<br>133<br>286       | (11413, 5430)<br>(19822, 11993)<br>(55, 325)<br>(138, 592)       |
|                                  |          | Day 57 | 48 | Binding Antibody to RBD<br>Binding Antibody to Spike<br>PsV Neutralization 50% Titer<br>PsV Neutralization 80% Titer | 1323263<br>2024829<br>2991<br>3100 | (505712, 34080)<br>(764415, 53080)<br>(991, 9024)<br>(980, 9806) |
| American Indian or Alaska Native | Negative | Day 1  | 27 | Binding Antibody to RBD<br>Binding Antibody to Spike<br>PsV Neutralization 50% Titer<br>PsV Neutralization 80% Titer | 17<br>17<br>24<br>22               | (17, 17)<br>(17, 17)<br>(24, 24)<br>(22, 22)                     |
|                                  |          | Day 29 | 27 | Binding Antibody to RBD<br>Binding Antibody to Spike<br>PsV Neutralization 50% Titer<br>PsV Neutralization 80% Titer | 492<br>841<br>56<br>58             | (281, 862)<br>(497, 1424)<br>(37, 83)<br>(35, 99)                |
|                                  |          | Day 57 | 27 | Binding Antibody to RBD<br>Binding Antibody to Spike<br>PsV Neutralization 50% Titer<br>PsV Neutralization 80% Titer | 3701<br>5302<br>273<br>247         | (2089, 6558)<br>(2655, 10588)<br>(208, 359)<br>(219, 280)        |
|                                  | Positive | Day 1  | 17 | Binding Antibody to RBD<br>Binding Antibody to Spike<br>PsV Neutralization 50% Titer                                 | 17<br>17<br>24                     | (17, 17)<br>(17, 17)<br>(24, 24)                                 |

Table 2.19: Table 3h. Geometric mean titers (GMTs) or geometric mean value of concentrations (GMCs) by Race (continued)

| Group                     | Baseline                  | Visit  | N   | Endpoint                     | GMT/GMC | 95%  |
|---------------------------|---------------------------|--------|-----|------------------------------|---------|------|
| Asian                     | Negative                  | Day 29 | 17  | PsV Neutralization 80% Titer | 22      | (22) |
|                           |                           |        |     | Binding Antibody to RBD      | 53664   | (28) |
|                           |                           |        |     | Binding Antibody to Spike    | 70861   | (39) |
|                           |                           | Day 57 | 17  | PsV Neutralization 50% Titer | 115     | (83) |
|                           |                           |        |     | PsV Neutralization 80% Titer | 213     | (10) |
|                           |                           |        |     | Binding Antibody to RBD      | 1414716 | (66) |
|                           | Positive                  | Day 1  | 84  | Binding Antibody to Spike    | 5725330 | (31) |
|                           |                           |        |     | PsV Neutralization 50% Titer | 2916    | (10) |
|                           |                           |        |     | PsV Neutralization 80% Titer | 5444    | (24) |
|                           |                           | Day 29 | 84  | Binding Antibody to RBD      | 17      | (17) |
|                           |                           |        |     | Binding Antibody to Spike    | 17      | (17) |
|                           |                           |        |     | PsV Neutralization 50% Titer | 24      | (24) |
| Black or African American | Negative                  | Day 1  | 46  | PsV Neutralization 80% Titer | 22      | (22) |
|                           |                           |        |     | Binding Antibody to RBD      | 1130    | (74) |
|                           |                           |        |     | Binding Antibody to Spike    | 1571    | (10) |
|                           |                           | Day 57 | 84  | PsV Neutralization 50% Titer | 63      | (58) |
|                           |                           |        |     | PsV Neutralization 80% Titer | 92      | (85) |
|                           |                           |        |     | Binding Antibody to RBD      | 7837    | (41) |
|                           | Positive                  | Day 1  | 216 | Binding Antibody to Spike    | 16133   | (62) |
|                           |                           |        |     | PsV Neutralization 50% Titer | 407     | (27) |
|                           |                           |        |     | PsV Neutralization 80% Titer | 373     | (27) |
|                           |                           | Day 29 | 46  | Binding Antibody to RBD      | 17      | (17) |
|                           |                           |        |     | Binding Antibody to Spike    | 17      | (17) |
|                           |                           |        |     | PsV Neutralization 50% Titer | 24      | (24) |
|                           | Black or African American | Day 1  | 216 | PsV Neutralization 80% Titer | 22      | (22) |
|                           |                           |        |     | Binding Antibody to RBD      | 11619   | (19) |
|                           |                           |        |     | Binding Antibody to Spike    | 36569   | (11) |
|                           |                           | Day 57 | 46  | PsV Neutralization 50% Titer | 87      | (23) |
|                           |                           |        |     | PsV Neutralization 80% Titer | 149     | (50) |
|                           |                           |        |     | Binding Antibody to RBD      | 521481  | (99) |
| White                     | Negative                  | Day 1  | 216 | Binding Antibody to Spike    | 1751893 | (65) |
|                           |                           |        |     | PsV Neutralization 50% Titer | 1291    | (24) |
|                           |                           |        |     | PsV Neutralization 80% Titer | 2189    | (44) |
|                           |                           | Day 29 | 216 | Binding Antibody to RBD      | 17      | (17) |
|                           |                           |        |     | Binding Antibody to Spike    | 17      | (17) |
|                           |                           |        |     | PsV Neutralization 50% Titer | 25      | (24) |
|                           | Positive                  | Day 1  | 46  | PsV Neutralization 80% Titer | 22      | (22) |
|                           |                           |        |     | Binding Antibody to RBD      | 678     | (42) |
|                           |                           |        |     | Binding Antibody to Spike    | 907     | (56) |
|                           |                           | Day 57 | 216 | PsV Neutralization 50% Titer | 56      | (44) |
|                           |                           |        |     | PsV Neutralization 80% Titer | 66      | (50) |
|                           |                           |        |     | Binding Antibody to RBD      | 4901    | (31) |

Table 2.19: Table 3h. Geometric mean titers (GMTs) or geometric mean value of concentrations (GMCs) by Race (continued)

| Group                             | Baseline                                  | Visit    | N  | Endpoint                     | GMT/GMC | 95% CI          |
|-----------------------------------|---|----------|----|------------------------------|---------|-----------------|
| White                             | Positive                                  | Day 1    | 91 | Binding Antibody to Spike    | 7128    | (4607, 1102)    |
|                                   |   |          |    | PsV Neutralization 50% Titer | 209     | (121, 361)      |
|                                   |   | Day 29   | 91 | PsV Neutralization 80% Titer | 242     | (172, 341)      |
|                                   |   |          |    | Binding Antibody to RBD      | 17      | (17, 17)        |
|                                   | Day 57                                    | Day 1    | 91 | Binding Antibody to Spike    | 17      | (17, 17)        |
|                                   |   |          |    | PsV Neutralization 50% Titer | 24      | (24, 24)        |
|                                   |   | Day 29   | 91 | PsV Neutralization 80% Titer | 22      | (22, 22)        |
|                                   |   |          |    | Binding Antibody to RBD      | 22121   | (12760, 3834)   |
|                                   | Multiracial                               | Negative | 62 | Binding Antibody to Spike    | 27258   | (15935, 4663)   |
|                                   |   |          |    | PsV Neutralization 50% Titer | 107     | (71, 162)       |
|                                   |   |          |    | PsV Neutralization 80% Titer | 229     | (147, 355)      |
|                                   |   |          |    | Binding Antibody to RBD      | 946101  | (483662, 1834)  |
| Asian                             | Positive                                  | Day 1    | 62 | Binding Antibody to Spike    | 1414303 | (716855, 2794)  |
|                                   |   |          |    | PsV Neutralization 50% Titer | 1608    | (912, 2834)     |
|                                   |   | Day 29   | 62 | PsV Neutralization 80% Titer | 3218    | (2241, 4620)    |
|                                   |   |          |    | Binding Antibody to RBD      | 17      | (17, 17)        |
|                                   | Day 57                                    | Day 1    | 62 | Binding Antibody to Spike    | 17      | (17, 17)        |
|                                   |   |          |    | PsV Neutralization 50% Titer | 24      | (24, 24)        |
|                                   |   | Day 29   | 62 | PsV Neutralization 80% Titer | 22      | (22, 22)        |
|                                   |   |          |    | Binding Antibody to RBD      | 220     | (54, 890)       |
|                                   | Native Hawaiian or Other Pacific Islander | Negative | 28 | Binding Antibody to Spike    | 293     | (70, 1232)      |
|                                   |   |          |    | PsV Neutralization 50% Titer | 39      | (21, 71)        |
|                                   |   |          |    | PsV Neutralization 80% Titer | 53      | (33, 85)        |
|                                   |   |          |    | Binding Antibody to RBD      | 939     | (160, 5531)     |
| Black                             | Positive                                  | Day 1    | 28 | Binding Antibody to Spike    | 1329    | (218, 8095)     |
|                                   |   |          |    | PsV Neutralization 50% Titer | 113     | (47, 273)       |
|                                   |   | Day 29   | 28 | PsV Neutralization 80% Titer | 100     | (34, 292)       |
|                                   |   |          |    | Binding Antibody to RBD      | 17      | (17, 17)        |
|                                   | Day 57                                    | Day 1    | 28 | Binding Antibody to Spike    | 17      | (17, 17)        |
|                                   |   |          |    | PsV Neutralization 50% Titer | 24      | (24, 24)        |
|                                   |   | Day 29   | 28 | PsV Neutralization 80% Titer | 22      | (22, 22)        |
|                                   |   |          |    | Binding Antibody to RBD      | 37199   | (22732, 6084)   |
|                                   | Native Hawaiian or Other Pacific Islander | Negative | 20 | Binding Antibody to Spike    | 47412   | (33185, 6773)   |
|                                   |   |          |    | PsV Neutralization 50% Titer | 150     | (122, 184)      |
|                                   |   |          |    | PsV Neutralization 80% Titer | 327     | (220, 486)      |
|                                   |   |          |    | Binding Antibody to RBD      | 2284913 | (1619956, 3284) |
| American Indian or Alaskan Native | Positive                                  | Day 1    | 20 | Binding Antibody to Spike    | 2984414 | (2020851, 4484) |
|                                   |   |          |    | PsV Neutralization 50% Titer | 1828    | (714, 4684)     |
| American Indian or Alaskan Native | Negative                                  | Day 1    | 20 | PsV Neutralization 80% Titer | 8232    | (5671, 11950)   |
|                                   |   |          |    | Binding Antibody to RBD      | 17      | (17, 17)        |
| American Indian or Alaskan Native | Positive                                  | Day 29   | 20 | Binding Antibody to Spike    | 17      | (17, 17)        |
|                                   |   |          |    | PsV Neutralization 50% Titer | 150     | (122, 184)      |
| American Indian or Alaskan Native | Negative                                  | Day 29   | 20 | PsV Neutralization 80% Titer | 327     | (220, 486)      |
|                                   |   |          |    | Binding Antibody to RBD      | 2284913 | (1619956, 3284) |
| American Indian or Alaskan Native | Positive                                  | Day 57   | 20 | Binding Antibody to Spike    | 2984414 | (2020851, 4484) |
|                                   |   |          |    | PsV Neutralization 50% Titer | 1828    | (714, 4684)     |
| American Indian or Alaskan Native | Negative                                  | Day 57   | 20 | PsV Neutralization 80% Titer | 8232    | (5671, 11950)   |
|                                   |   |          |    | Binding Antibody to RBD      | 17      | (17, 17)        |

Table 2.19: Table 3h. Geometric mean titers (GMTs) or geometric mean value of concentrations (GMCs) by Race (continued)

| Group | Baseline | Visit | N                            | Endpoint | GMT/GMC | 95% |
|-------|----------|-------|------------------------------|----------|---------|-----|
| White | Day 29   | 20    | PsV Neutralization 50% Titer | 24       | (24)    |     |
|       |          |       |                              | 22       | (22)    |     |
|       |          |       | Binding Antibody to RBD      | 2795     | (125)   |     |
|       |          |       | Binding Antibody to Spike    | 3885     | (11)    |     |
|       |          |       | PsV Neutralization 50% Titer | 79       | (48)    |     |
|       | Day 57   | 20    | PsV Neutralization 80% Titer | 179      | (28)    |     |
|       |          |       | Binding Antibody to RBD      | 26587    | (25)    |     |
|       |          |       | Binding Antibody to Spike    | 51884    | (19)    |     |
|       |          |       | PsV Neutralization 50% Titer | 504      | (56)    |     |
|       |          |       | PsV Neutralization 80% Titer | 943      | (82)    |     |
| Black | Positive | Day 1 | Binding Antibody to RBD      | 17       | (17)    |     |
|       |          |       |                              | 17       | (17)    |     |
|       |          |       | PsV Neutralization 50% Titer | 24       | (24)    |     |
|       |          |       | PsV Neutralization 80% Titer | 22       | (22)    |     |
|       |          |       | Binding Antibody to RBD      | 33785    | (16)    |     |
|       | Day 29   | 7     | Binding Antibody to Spike    | 67752    | (19)    |     |
|       |          |       | PsV Neutralization 50% Titer | 99       | (46)    |     |
|       |          |       | PsV Neutralization 80% Titer | 391      | (21)    |     |
|       |          |       | Binding Antibody to RBD      | 1775012  | (39)    |     |
|       |          |       | Binding Antibody to Spike    | 2028355  | (38)    |     |
| Other | Negative | Day 1 | PsV Neutralization 50% Titer | 798      | (36)    |     |
|       |          |       |                              | 24331    | (80)    |     |
|       |          |       | Binding Antibody to RBD      | 17       | (17)    |     |
|       |          |       | Binding Antibody to Spike    | 17       | (17)    |     |
|       |          |       | PsV Neutralization 80% Titer | 22       | (22)    |     |
|       | Day 29   | 28    | Binding Antibody to RBD      | 6301     | (10)    |     |
|       |          |       | Binding Antibody to Spike    | 8355     | (12)    |     |
|       |          |       | PsV Neutralization 50% Titer | 103      | (89)    |     |
|       |          |       | PsV Neutralization 80% Titer | 102      | (50)    |     |
|       |          |       | Binding Antibody to RBD      | 105462   | (85)    |     |
| Asian | Day 57   | 28    | Binding Antibody to Spike    | 221629   | (83)    |     |
|       |          |       | PsV Neutralization 50% Titer | 860      | (48)    |     |
|       |          |       | PsV Neutralization 80% Titer | 624      | (44)    |     |
|       |          |       | Binding Antibody to RBD      | 17       | (17)    |     |
|       |          |       | Binding Antibody to Spike    | 17       | (17)    |     |
|       | Positive | Day 1 | PsV Neutralization 50% Titer | 24       | (24)    |     |
|       |          |       | PsV Neutralization 80% Titer | 22       | (22)    |     |
|       |          |       | Binding Antibody to RBD      | 17228    | (10)    |     |
|       |          |       | Binding Antibody to Spike    | 43917    | (38)    |     |
|       |          |       | PsV Neutralization 50% Titer | 101      | (50)    |     |

Table 2.19: Table 3h. Geometric mean titers (GMTs) or geometric mean value of concentrations (GMCs) by Race (continued)

| Group              | Baseline | Visit  | N      | Endpoint                     | GMT/GMC | 95% CI            |
|--------------------|----------|--------|--------|------------------------------|---------|-------------------|
| White              | Negative | Day 57 | 24     | Binding Antibody to RBD      | 794994  | (549369, 115000)  |
|                    |          |        |        | Binding Antibody to Spike    | 2203051 | (1830631, 260000) |
|                    |          |        |        | PsV Neutralization 50% Titer | 1881    | (883, 4006)       |
|                    |          |        | 43     | PsV Neutralization 80% Titer | 2713    | (1110, 6631)      |
|                    |          | Day 1  | 17     | Binding Antibody to RBD      | 17      | (17, 17)          |
|                    |          |        |        | Binding Antibody to Spike    | 17      | (17, 17)          |
|                    | Positive | Day 29 | 43     | PsV Neutralization 50% Titer | 24      | (24, 24)          |
|                    |          |        |        | PsV Neutralization 80% Titer | 22      | (22, 22)          |
|                    |          |        | 43     | Binding Antibody to RBD      | 464     | (165, 1307)       |
|                    |          | Day 57 | 43     | Binding Antibody to Spike    | 684     | (225, 2083)       |
|                    |          |        |        | PsV Neutralization 50% Titer | 62      | (55, 71)          |
|                    |          |        | 43     | PsV Neutralization 80% Titer | 77      | (56, 106)         |
| White Non-Hispanic | Negative | Day 1  | 38     | Binding Antibody to RBD      | 3252    | (571, 18539)      |
|                    |          |        |        | Binding Antibody to Spike    | 5596    | (971, 32243)      |
|                    |          |        |        | PsV Neutralization 50% Titer | 154     | (69, 343)         |
|                    |          | Day 29 | 38     | PsV Neutralization 80% Titer | 174     | (68, 450)         |
|                    |          |        |        | Binding Antibody to RBD      | 17      | (17, 17)          |
|                    |          |        | 38     | Binding Antibody to Spike    | 17      | (17, 17)          |
|                    | Positive | Day 57 | 38     | PsV Neutralization 50% Titer | 24      | (24, 24)          |
|                    |          |        |        | PsV Neutralization 80% Titer | 22      | (22, 22)          |
|                    |          |        | 38     | Binding Antibody to RBD      | 21515   | (7856, 58924)     |
|                    |          | Day 1  | 456    | Binding Antibody to Spike    | 32724   | (10987, 9740)     |
|                    |          |        |        | PsV Neutralization 50% Titer | 113     | (62, 205)         |
|                    |          |        | 456    | PsV Neutralization 80% Titer | 280     | (168, 464)        |
|                    | Positive | Day 29 | 38     | Binding Antibody to RBD      | 899840  | (269899, 300000)  |
|                    |          |        |        | Binding Antibody to Spike    | 2849885 | (1213108, 600000) |
|                    |          |        |        | PsV Neutralization 50% Titer | 1185    | (283, 4957)       |
|                    |          | Day 57 | 38     | PsV Neutralization 80% Titer | 2817    | (742, 10699)      |
|                    |          |        |        | Binding Antibody to RBD      | 17      | (17, 17)          |
|                    |          |        | 456    | Binding Antibody to Spike    | 17      | (17, 17)          |
|                    |          | Day 1  | 456    | PsV Neutralization 50% Titer | 24      | (24, 24)          |
|                    |          |        |        | PsV Neutralization 80% Titer | 22      | (22, 22)          |
|                    |          |        | Day 29 | Binding Antibody to RBD      | 820     | (555, 1213)       |
|                    |          |        |        | Binding Antibody to Spike    | 1102    | (742, 1637)       |
|                    |          |        |        | PsV Neutralization 50% Titer | 58      | (43, 77)          |
|                    |          | Day 57 | 456    | PsV Neutralization 80% Titer | 72      | (57, 92)          |
|                    |          |        |        | Binding Antibody to RBD      | 5778    | (3698, 9029)      |
|                    |          |        | Day 1  | Binding Antibody to Spike    | 8551    | (5369, 1362)      |
|                    |          |        |        | PsV Neutralization 50% Titer | 230     | (164, 322)        |
|                    |          |        |        | PsV Neutralization 80% Titer | 297     | (220, 402)        |
|                    | Positive | Day 1  | 224    | Binding Antibody to RBD      | 17      | (17, 17)          |
|                    |          |        |        | Binding Antibody to Spike    | 17      | (17, 17)          |

Table 2.19: Table 3h. Geometric mean titers (GMTs) or geometric mean value of concentrations (GMCs) by Race (continued)

| Group      | Baseline | Visit | N                            | Endpoint | GMT/GMC | 95% |
|------------|----------|-------|------------------------------|----------|---------|-----|
| Day 29 224 | Day 29   | 224   | PsV Neutralization 50% Titer | 24       | (24)    |     |
|            |          |       |                              | 22       | (22)    |     |
|            |          |       | Binding Antibody to RBD      | 21377    | (100)   |     |
|            |          |       | Binding Antibody to Spike    | 39697    | (199)   |     |
|            |          |       | PsV Neutralization 50% Titer | 114      | (66)    |     |
|            | Day 57   | 224   | PsV Neutralization 80% Titer | 237      | (173)   |     |
|            |          |       | Binding Antibody to RBD      | 1196300  | (633)   |     |
|            |          |       | Binding Antibody to Spike    | 2008434  | (950)   |     |
|            |          |       | PsV Neutralization 50% Titer | 1605     | (722)   |     |
|            |          |       | PsV Neutralization 80% Titer | 4347     | (333)   |     |

bAb LLOQ = 34; nAb ID50 LLOQ = 49; nAb ID80 LLOQ = 43

All calculations were weighted by the inverse probability sampling (IPS), defined based on the subcohort sample.

Table 2.20: Table 3i. Geometric mean titers (GMTs) or geometric mean value of concentrations (GMCs) by Race and ethnic group

| Group                 | Baseline | Visit  | N   | Endpoint                     | GMT/GMC | 95% CI         |
|-----------------------|----------|--------|-----|------------------------------|---------|----------------|
| Race and ethnic group |          |        |     |                              |         |                |
| White Non-Hispanic    | Negative | Day 1  | 456 | Binding Antibody to RBD      | 17      | (17, 17)       |
|                       |          |        |     | Binding Antibody to Spike    | 17      | (17, 17)       |
|                       |          | Day 29 | 456 | PsV Neutralization 50% Titer | 24      | (24, 24)       |
|                       |          |        |     | PsV Neutralization 80% Titer | 22      | (22, 22)       |
|                       | Positive | Day 1  | 456 | Binding Antibody to RBD      | 820     | (555, 1213)    |
|                       |          |        |     | Binding Antibody to Spike    | 1102    | (742, 1637)    |
|                       |          | Day 29 | 456 | PsV Neutralization 50% Titer | 58      | (43, 77)       |
|                       |          |        |     | PsV Neutralization 80% Titer | 72      | (57, 92)       |
|                       | Positive | Day 1  | 456 | Binding Antibody to RBD      | 5778    | (3698, 9029)   |
|                       |          |        |     | Binding Antibody to Spike    | 8551    | (5369, 1362)   |
|                       |          | Day 29 | 456 | PsV Neutralization 50% Titer | 230     | (164, 322)     |
|                       |          |        |     | PsV Neutralization 80% Titer | 297     | (220, 402)     |
| Communities of Color  | Negative | Day 1  | 224 | Binding Antibody to RBD      | 17      | (17, 17)       |
|                       |          |        |     | Binding Antibody to Spike    | 17      | (17, 17)       |
|                       |          | Day 29 | 224 | PsV Neutralization 50% Titer | 24      | (24, 24)       |
|                       |          |        |     | PsV Neutralization 80% Titer | 22      | (22, 22)       |
|                       | Positive | Day 1  | 224 | Binding Antibody to RBD      | 21377   | (10629, 4299)  |
|                       |          |        |     | Binding Antibody to Spike    | 39697   | (19683, 8000)  |
|                       |          | Day 29 | 224 | PsV Neutralization 50% Titer | 114     | (66, 196)      |
|                       |          |        |     | PsV Neutralization 80% Titer | 237     | (172, 328)     |
|                       | Positive | Day 1  | 224 | Binding Antibody to RBD      | 1196300 | (639742, 2299) |
|                       |          |        |     | Binding Antibody to Spike    | 2008434 | (956643, 4299) |
|                       |          | Day 29 | 224 | PsV Neutralization 50% Titer | 1605    | (723, 3563)    |
|                       |          |        |     | PsV Neutralization 80% Titer | 4347    | (3347, 5646)   |
|                       | Positive | Day 1  | 535 | Binding Antibody to RBD      | 17      | (17, 17)       |
|                       |          |        |     | Binding Antibody to Spike    | 17      | (17, 17)       |
|                       |          | Day 29 | 535 | PsV Neutralization 50% Titer | 24      | (24, 24)       |
|                       |          |        |     | PsV Neutralization 80% Titer | 22      | (22, 22)       |
|                       | Positive | Day 1  | 535 | Binding Antibody to RBD      | 659     | (445, 974)     |
|                       |          |        |     | Binding Antibody to Spike    | 916     | (649, 1294)    |
|                       |          | Day 29 | 535 | PsV Neutralization 50% Titer | 55      | (42, 72)       |
|                       |          |        |     | PsV Neutralization 80% Titer | 71      | (56, 90)       |
|                       | Positive | Day 1  | 535 | Binding Antibody to RBD      | 4500    | (3149, 6430)   |
|                       |          |        |     | Binding Antibody to Spike    | 6827    | (5206, 8954)   |
|                       |          | Day 29 | 535 | PsV Neutralization 50% Titer | 231     | (166, 323)     |
|                       |          |        |     | PsV Neutralization 80% Titer | 249     | (194, 320)     |
|                       | Positive | Day 1  | 261 | Binding Antibody to RBD      | 17      | (17, 17)       |
|                       |          |        |     | Binding Antibody to Spike    | 17      | (17, 17)       |
|                       |          | Day 29 | 261 | PsV Neutralization 50% Titer | 24      | (24, 24)       |
|                       |          |        |     | PsV Neutralization 80% Titer | 22      | (22, 22)       |

Table 2.20: Table 3i. Geometric mean titers (GMTs) or geometric mean value of concentrations (GMCs) by Race and ethnic group (continued)

| Group | Baseline | Visit  | N   | Endpoint                     | GMT/GMC | 95%  |
|-------|----------|--------|-----|------------------------------|---------|------|
|       |          | Day 29 | 261 | Binding Antibody to RBD      | 22232   | (11) |
|       |          |        |     | Binding Antibody to Spike    | 38731   | (21) |
|       |          |        |     | PsV Neutralization 50% Titer | 111     | (61) |
|       |          |        |     | PsV Neutralization 80% Titer | 218     | (12) |
|       |          | Day 57 | 261 | Binding Antibody to RBD      | 1018509 | (47) |
|       |          |        |     | Binding Antibody to Spike    | 1986558 | (10) |
|       |          |        |     | PsV Neutralization 50% Titer | 1816    | (72) |
|       |          |        |     | PsV Neutralization 80% Titer | 3532    | (17) |

bAb LLOQ = 34; nAb ID50 LLOQ = 49; nAb ID80 LLOQ = 43

All calculations were weighted by the inverse probability sampling (IPS), defined based on the subcohort sample.

Table 2.21: Table 3j. Geometric mean titers (GMTs) or geometric mean value of concentrations (GMCs) by Age, Race and ethnic group

| Group                              | Baseline | Visit  | N   | Endpoint                     | GMT/GMC | 95% CI          |
|------------------------------------|----------|--------|-----|------------------------------|---------|-----------------|
| Age, Race and ethnic group         |          |        |     |                              |         |                 |
| Age $\geq$ 65 Communities of Color |          |        |     |                              |         |                 |
|                                    | Negative | Day 1  | 253 | Binding Antibody to RBD      | 17      | (17, 17)        |
|                                    |          |        |     | Binding Antibody to Spike    | 17      | (17, 17)        |
|                                    |          |        |     | PsV Neutralization 50% Titer | 24      | (24, 24)        |
|                                    |          |        |     | PsV Neutralization 80% Titer | 22      | (22, 22)        |
|                                    |          | Day 29 | 253 | Binding Antibody to RBD      | 563     | (536, 591)      |
|                                    |          |        |     | Binding Antibody to Spike    | 794     | (793, 794)      |
|                                    |          |        |     | PsV Neutralization 50% Titer | 49      | (49, 49)        |
|                                    |          |        |     | PsV Neutralization 80% Titer | 64      | (60, 68)        |
|                                    |          | Day 57 | 253 | Binding Antibody to RBD      | 3882    | (3848, 3917)    |
|                                    |          |        |     | Binding Antibody to Spike    | 6096    | (6064, 6128)    |
|                                    |          |        |     | PsV Neutralization 50% Titer | 201     | (194, 209)      |
|                                    |          |        |     | PsV Neutralization 80% Titer | 223     | (208, 239)      |
|                                    | Positive | Day 1  | 148 | Binding Antibody to RBD      | 17      | (17, 17)        |
|                                    |          |        |     | Binding Antibody to Spike    | 17      | (17, 17)        |
|                                    |          |        |     | PsV Neutralization 50% Titer | 25      | (24, 25)        |
|                                    |          |        |     | PsV Neutralization 80% Titer | 22      | (22, 22)        |
|                                    |          | Day 29 | 148 | Binding Antibody to RBD      | 16900   | (14512, 1968)   |
|                                    |          |        |     | Binding Antibody to Spike    | 30307   | (28649, 3200)   |
|                                    |          |        |     | PsV Neutralization 50% Titer | 88      | (85, 91)        |
|                                    |          |        |     | PsV Neutralization 80% Titer | 174     | (172, 177)      |
|                                    |          | Day 57 | 148 | Binding Antibody to RBD      | 759339  | (737392, 786)   |
|                                    |          |        |     | Binding Antibody to Spike    | 1536749 | (1478612, 1593) |
|                                    |          |        |     | PsV Neutralization 50% Titer | 1263    | (1256, 1269)    |
|                                    |          |        |     | PsV Neutralization 80% Titer | 2676    | (2533, 2827)    |
| Age $\geq$ 65 White Non-Hispanic   | Negative | Day 1  | 227 | Binding Antibody to RBD      | 17      | (17, 17)        |
|                                    |          |        |     | Binding Antibody to Spike    | 17      | (17, 17)        |
|                                    |          |        |     | PsV Neutralization 50% Titer | 24      | (24, 24)        |
|                                    |          |        |     | PsV Neutralization 80% Titer | 21      | (21, 22)        |
|                                    |          | Day 29 | 227 | Binding Antibody to RBD      | 720     | (468, 1109)     |
|                                    |          |        |     | Binding Antibody to Spike    | 961     | (632, 1460)     |
|                                    |          |        |     | PsV Neutralization 50% Titer | 51      | (45, 58)        |
|                                    |          |        |     | PsV Neutralization 80% Titer | 66      | (55, 78)        |
|                                    |          | Day 57 | 227 | Binding Antibody to RBD      | 5027    | (3007, 8404)    |
|                                    |          |        |     | Binding Antibody to Spike    | 7516    | (4267, 13238)   |
|                                    |          |        |     | PsV Neutralization 50% Titer | 200     | (157, 256)      |
|                                    |          |        |     | PsV Neutralization 80% Titer | 269     | (193, 374)      |
|                                    | Positive | Day 1  | 117 | Binding Antibody to RBD      | 17      | (17, 17)        |
|                                    |          |        |     | Binding Antibody to Spike    | 17      | (17, 17)        |
|                                    |          |        |     | PsV Neutralization 50% Titer | 24      | (24, 24)        |

Table 2.21: Table 3j. Geometric mean titers (GMTs) or geometric mean value of concentrations (GMCs) by Age, Race and ethnic group (continued)

| Group                              | Baseline | Visit  | N   | Endpoint                     | GMT/GMC | 95%  |
|------------------------------------|----------|--------|-----|------------------------------|---------|------|
| Age $\geq$ 65 Communities of Color | Negative | Day 29 | 117 | PsV Neutralization 80% Titer | 22      | (22) |
|                                    |          |        |     | Binding Antibody to RBD      | 16418   | (13) |
|                                    |          |        |     | Binding Antibody to Spike    | 30286   | (25) |
|                                    |          |        |     | PsV Neutralization 50% Titer | 94      | (73) |
|                                    |          |        |     | PsV Neutralization 80% Titer | 209     | (20) |
|                                    | Positive | Day 57 | 117 | Binding Antibody to RBD      | 929328  | (88) |
|                                    |          |        |     | Binding Antibody to Spike    | 1510748 | (12) |
|                                    |          |        |     | PsV Neutralization 50% Titer | 1165    | (10) |
|                                    |          |        |     | PsV Neutralization 80% Titer | 3881    | (35) |
|                                    |          |        |     | Binding Antibody to RBD      | 17      | (17) |
| Age $\geq$ 65 White Non-Hispanic   | Negative | Day 1  | 282 | Binding Antibody to Spike    | 17      | (17) |
|                                    |          |        |     | PsV Neutralization 50% Titer | 24      | (24) |
|                                    |          |        |     | PsV Neutralization 80% Titer | 22      | (22) |
|                                    |          |        |     | Binding Antibody to RBD      | 1136    | (11) |
|                                    |          |        |     | Binding Antibody to Spike    | 1507    | (15) |
|                                    | Positive | Day 29 | 282 | PsV Neutralization 50% Titer | 81      | (81) |
|                                    |          |        |     | PsV Neutralization 80% Titer | 102     | (10) |
|                                    |          |        |     | Binding Antibody to RBD      | 7509    | (75) |
|                                    |          |        |     | Binding Antibody to Spike    | 10117   | (10) |
|                                    |          |        |     | PsV Neutralization 50% Titer | 378     | (37) |
|                                    |          |        |     | PsV Neutralization 80% Titer | 364     | (36) |
|                                    | Negative | Day 1  | 113 | Binding Antibody to RBD      | 17      | (17) |
|                                    |          |        |     | Binding Antibody to Spike    | 17      | (17) |
|                                    |          |        |     | PsV Neutralization 50% Titer | 24      | (24) |
|                                    |          |        |     | PsV Neutralization 80% Titer | 22      | (22) |
|                                    |          |        |     | Binding Antibody to RBD      | 77378   | (77) |
|                                    | Positive | Day 29 | 113 | Binding Antibody to Spike    | 118160  | (11) |
|                                    |          |        |     | PsV Neutralization 50% Titer | 318     | (31) |
|                                    |          |        |     | PsV Neutralization 80% Titer | 607     | (60) |
|                                    |          |        |     | Binding Antibody to RBD      | 3872288 | (38) |
|                                    |          |        |     | Binding Antibody to Spike    | 6385528 | (63) |
|                                    | Positive | Day 57 | 113 | PsV Neutralization 50% Titer | 9473    | (94) |
|                                    |          |        |     | PsV Neutralization 80% Titer | 12476   | (12) |
|                                    |          |        |     | Binding Antibody to RBD      | 17      | (17) |
|                                    |          |        |     | Binding Antibody to Spike    | 17      | (17) |
|                                    |          |        |     | PsV Neutralization 50% Titer | 24      | (24) |
|                                    |          |        |     | PsV Neutralization 80% Titer | 22      | (22) |
|                                    | Negative | Day 29 | 229 | Binding Antibody to RBD      | 1373    | (13) |
|                                    |          |        |     | Binding Antibody to Spike    | 1899    | (18) |
|                                    |          |        |     | PsV Neutralization 50% Titer | 94      | (94) |

Table 2.21: Table 3j. Geometric mean titers (GMTs) or geometric mean value of concentrations (GMCs) by Age, Race and ethnic group (continued)

| Group    | Baseline | Visit | N | Endpoint                     | GMT/GMC | 95% CI             |
|----------|----------|-------|---|------------------------------|---------|--------------------|
| Positive | Day 57   | 229   |   | PsV Neutralization 80% Titer | 106     | (106, 106)         |
|          |          |       |   | Binding Antibody to RBD      | 10032   | (10032, 10032)     |
|          |          |       |   | Binding Antibody to Spike    | 14259   | (14259, 14259)     |
|          |          |       |   | PsV Neutralization 50% Titer | 397     | (397, 397)         |
|          |          |       |   | PsV Neutralization 80% Titer | 443     | (443, 443)         |
|          | Day 1    | 107   |   | Binding Antibody to RBD      | 17      | (17, 17)           |
|          |          |       |   | Binding Antibody to Spike    | 17      | (17, 17)           |
|          |          |       |   | PsV Neutralization 50% Titer | 24      | (24, 24)           |
|          |          |       |   | PsV Neutralization 80% Titer | 22      | (21, 22)           |
|          | Day 29   | 107   |   | Binding Antibody to RBD      | 55615   | (55615, 55615)     |
|          |          |       |   | Binding Antibody to Spike    | 105802  | (105802, 105802)   |
|          |          |       |   | PsV Neutralization 50% Titer | 221     | (221, 221)         |
|          |          |       |   | PsV Neutralization 80% Titer | 379     | (379, 379)         |
|          | Day 57   | 107   |   | Binding Antibody to RBD      | 2986544 | (2986544, 2986544) |
|          |          |       |   | Binding Antibody to Spike    | 5634914 | (5634914, 5634914) |
|          |          |       |   | PsV Neutralization 50% Titer | 5121    | (5121, 5121)       |
|          |          |       |   | PsV Neutralization 80% Titer | 6556    | (6556, 6556)       |

bAb LLOQ = 34; nAb ID50 LLOQ = 49; nAb ID80 LLOQ = 43

All calculations were weighted by the inverse probability sampling (IPS), defined based on the subcohort sampling strata.

## 2.0.4 Table 4. GMTRs or GMCRs between post-vaccinations vs. pre-vaccination

Table 2.22: Table 4a. Geometric mean titer ratios (GMTRs) or geometric mean concentration ratios (GMCRs) between post-vaccinations/pre-vaccination by All participants

| Group                  | Baseline              | Visit  | N  | Endpoint             | G |
|------------------------|-----------------------|--|--|----------------------|---|
| All participants       |                       |  |  |                      |   |
| All participants       |                       |  |  |                      |   |
| Negative               | D29 fold-rise over D1 | 1062   | Binding Antibody to RBD<br>Binding Antibody to Spike<br>PsV Neutralization 50% Titer<br>PsV Neutralization 80% Titer | 55<br>74<br>24<br>35 |   |
| D57 fold-rise over D1  | 1062                  | Binding Antibody to RBD<br>Binding Antibody to Spike<br>PsV Neutralization 50% Titer<br>PsV Neutralization 80% Titer | 39<br>59<br>10<br>12   |                      |   |
| D57 fold-rise over D29 | 1062                  | Binding Antibody to RBD<br>Binding Antibody to Spike<br>PsV Neutralization 50% Titer<br>PsV Neutralization 80% Titer | 22<br>24<br>10<br>9.   |                      |   |
| Positive               | D29 fold-rise over D1 | 543  | Binding Antibody to RBD<br>Binding Antibody to Spike<br>PsV Neutralization 50% Titer<br>PsV Neutralization 80% Titer | 22<br>36<br>95<br>21 |   |
| D57 fold-rise over D1  | 543                   | Binding Antibody to RBD<br>Binding Antibody to Spike<br>PsV Neutralization 50% Titer<br>PsV Neutralization 80% Titer | 12<br>22<br>16<br>36   |                      |   |
| D57 fold-rise over D29 | 543                   | Binding Antibody to RBD<br>Binding Antibody to Spike<br>PsV Neutralization 50% Titer<br>PsV Neutralization 80% Titer | 56<br>60<br>22<br>21   |                      |   |

All calculations were weighted by the inverse probability sampling (IPS), defined based on the subcohort sample size.

Table 2.23: Table 4b. Geometric mean titer ratios (GMTRs) or geometric mean concentrations ratios (GMCRs) between post-vaccinations/pre-vaccination by Age

| Group           | Baseline | Visit                  | N   | Endpoint   | GMTR/GMCR                                     |
|-----------------|----------|------------------------|-----|--|---|
| Age             |          |                        |     |  |   |
| Age $j \leq 65$ |          |                        |     |  |   |
|                 | Negative | D29 fold-rise over D1  | 513 | Binding Antibody to RBD<br>Binding Antibody to Spike<br>PsV Neutralization 50% Titer<br>PsV Neutralization 80% Titer | 489.15<br>653.42<br>21.72<br>32.82            |
|                 |          | D57 fold-rise over D1  | 513 | Binding Antibody to RBD<br>Binding Antibody to Spike<br>PsV Neutralization 50% Titer<br>PsV Neutralization 80% Titer | 3487.32<br>5191.97<br>93.11<br>117.31         |
|                 |          | D57 fold-rise over D29 | 513 | Binding Antibody to RBD<br>Binding Antibody to Spike<br>PsV Neutralization 50% Titer<br>PsV Neutralization 80% Titer | 21.94<br>24.05<br>10.82<br>9.53               |
|                 | Positive | D29 fold-rise over D1  | 294 | Binding Antibody to RBD<br>Binding Antibody to Spike<br>PsV Neutralization 50% Titer<br>PsV Neutralization 80% Titer | 16816.68<br>27355.47<br>73.25<br>179.36       |
|                 |          | D57 fold-rise over D1  | 294 | Binding Antibody to RBD<br>Binding Antibody to Spike<br>PsV Neutralization 50% Titer<br>PsV Neutralization 80% Titer | 890756.73<br>1614779.22<br>1106.10<br>2879.09 |
|                 |          | D57 fold-rise over D29 | 294 | Binding Antibody to RBD<br>Binding Antibody to Spike<br>PsV Neutralization 50% Titer<br>PsV Neutralization 80% Titer | 53.78<br>56.59<br>20.05<br>20.99              |
| Age $j = 65$    |          |                        |     |  |   |
|                 | Negative | D29 fold-rise over D1  | 549 | Binding Antibody to RBD<br>Binding Antibody to Spike<br>PsV Neutralization 50% Titer<br>PsV Neutralization 80% Titer | 881.82<br>1168.32<br>36.61<br>47.02           |
|                 |          | D57 fold-rise over D1  | 549 | Binding Antibody to RBD<br>Binding Antibody to Spike<br>PsV Neutralization 50% Titer<br>PsV Neutralization 80% Titer | 6435.64<br>9449.75<br>168.66<br>183.62        |
|                 |          | D57 fold-rise over D29 | 549 | Binding Antibody to RBD<br>Binding Antibody to Spike<br>PsV Neutralization 50% Titer<br>PsV Neutralization 80% Titer | 23.54<br>25.54<br>11.17<br>9.80               |
|                 | Positive | D29 fold-rise over D1  | 249 | Binding Antibody to RBD<br>Binding Antibody to Spike<br>PsV Neutralization 50% Titer<br>PsV Neutralization 80% Titer | 66946.13<br>114866.92<br>282.42<br>487.89     |

Table 2.23: Table 4b. Geometric mean titer ratios (GMTRs) or geometric mean count ratios (GMCRs) between post-vaccinations/pre-vaccination by Age (continued)

| Group | Baseline               | Visit | N   | Endpoint                     | GM  |
|-------|------------------------|-------|-----|------------------------------|-----|
|       | D57 fold-rise over D1  |       | 249 | Binding Antibody to RBD      | 452 |
|       |                        |       |     | Binding Antibody to Spike    | 892 |
|       |                        |       |     | PsV Neutralization 50% Titer | 770 |
|       |                        |       |     | PsV Neutralization 80% Titer | 940 |
|       | D57 fold-rise over D29 |       | 249 | Binding Antibody to RBD      | 68. |
|       |                        |       |     | Binding Antibody to Spike    | 76. |
|       |                        |       |     | PsV Neutralization 50% Titer | 33. |
|       |                        |       |     | PsV Neutralization 80% Titer | 23. |

All calculations were weighted by the inverse probability sampling (IPS), defined based on the subcohort sample.

Table 2.24: Table 4c. Geometric mean titer ratios (GMTRs) or geometric mean concentration ratios (GMCRs) between post-vaccinations/pre-vaccination by Risk for Severe Covid-19

| Group                           | Baseline | Visit                  | N   | Endpoint   | GMTR/GMCR                                      |
|---------------------------------|----------|------------------------|-----|--|--|
| <b>Risk for Severe Covid-19</b> |          |                        |     |  |  |
| At-risk                         | Negative | D29 fold-rise over D1  | 541 | Binding Antibody to RBD<br>Binding Antibody to Spike<br>PsV Neutralization 50% Titer<br>PsV Neutralization 80% Titer | 609.41<br>816.88<br>23.96<br>35.20             |
|                                 |          | D57 fold-rise over D1  | 541 | Binding Antibody to RBD<br>Binding Antibody to Spike<br>PsV Neutralization 50% Titer<br>PsV Neutralization 80% Titer | 4432.39<br>6518.38<br>107.58<br>141.00         |
|                                 |          | D57 fold-rise over D29 | 541 | Binding Antibody to RBD<br>Binding Antibody to Spike<br>PsV Neutralization 50% Titer<br>PsV Neutralization 80% Titer | 22.86<br>23.95<br>10.67<br>10.45               |
|                                 | Positive | D29 fold-rise over D1  | 246 | Binding Antibody to RBD<br>Binding Antibody to Spike<br>PsV Neutralization 50% Titer<br>PsV Neutralization 80% Titer | 26205.91<br>42092.31<br>113.33<br>243.81       |
|                                 |          | D57 fold-rise over D1  | 246 | Binding Antibody to RBD<br>Binding Antibody to Spike<br>PsV Neutralization 50% Titer<br>PsV Neutralization 80% Titer | 1650844.79<br>2628330.98<br>1986.45<br>4134.61 |
|                                 |          | D57 fold-rise over D29 | 246 | Binding Antibody to RBD<br>Binding Antibody to Spike<br>PsV Neutralization 50% Titer<br>PsV Neutralization 80% Titer | 63.68<br>60.95<br>25.09<br>21.63               |
| Not at-risk                     | Negative | D29 fold-rise over D1  | 521 | Binding Antibody to RBD<br>Binding Antibody to Spike<br>PsV Neutralization 50% Titer<br>PsV Neutralization 80% Titer | 536.79<br>714.39<br>24.45<br>35.57             |
|                                 |          | D57 fold-rise over D1  | 521 | Binding Antibody to RBD<br>Binding Antibody to Spike<br>PsV Neutralization 50% Titer<br>PsV Neutralization 80% Titer | 3825.04<br>5697.47<br>105.24<br>125.12         |
|                                 |          | D57 fold-rise over D29 | 521 | Binding Antibody to RBD<br>Binding Antibody to Spike<br>PsV Neutralization 50% Titer<br>PsV Neutralization 80% Titer | 22.07<br>24.52<br>10.98<br>9.29                |
|                                 | Positive | D29 fold-rise over D1  | 297 | Binding Antibody to RBD<br>Binding Antibody to Spike<br>PsV Neutralization 50% Titer<br>PsV Neutralization 80% Titer | 20931.32<br>34662.99<br>90.63<br>211.13        |

Table 2.24: Table 4c. Geometric mean titer ratios (GMTRs) or geometric mean concentrations (GMCs) between post-vaccinations/pre-vaccination by Risk for Severe Covid-19 (cont.)

| Group | Baseline               | Visit | N   | Endpoint                     | GM  |
|-------|------------------------|-------|-----|------------------------------|-----|
|       | D57 fold-rise over D1  |       | 297 | Binding Antibody to RBD      | 111 |
|       |                        |       |     | Binding Antibody to Spike    | 215 |
|       |                        |       |     | PsV Neutralization 50% Titer | 152 |
|       |                        |       |     | PsV Neutralization 80% Titer | 349 |
|       | D57 fold-rise over D29 |       | 297 | Binding Antibody to RBD      | 54. |
|       |                        |       |     | Binding Antibody to Spike    | 59. |
|       |                        |       |     | PsV Neutralization 50% Titer | 21. |
|       |                        |       |     | PsV Neutralization 80% Titer | 21. |

All calculations were weighted by the inverse probability sampling (IPS), defined based on the subcohort sample.

Table 2.25: Table 4d. Geometric mean titer ratios (GMTRs) or geometric mean concentrations ratios (GMCRs) between post-vaccinations/pre-vaccination by Age, Risk for Severe Covid-19

| Group                         | Baseline | Visit                  | N   | Endpoint   | GMTR/GMCR                                     |
|-------------------------------|----------|------------------------|-----|--|---|
| Age, Risk for Severe Covid-19 |          |                        |     |  |   |
| Age $\geq$ 65 At-risk         | Negative | D29 fold-rise over D1  | 257 | Binding Antibody to RBD<br>Binding Antibody to Spike<br>PsV Neutralization 50% Titer<br>PsV Neutralization 80% Titer | 451.38<br>601.13<br>18.48<br>28.94            |
|                               |          | D57 fold-rise over D1  | 257 | Binding Antibody to RBD<br>Binding Antibody to Spike<br>PsV Neutralization 50% Titer<br>PsV Neutralization 80% Titer | 3224.20<br>4687.58<br>81.00<br>108.97         |
|                               |          | D57 fold-rise over D29 | 257 | Binding Antibody to RBD<br>Binding Antibody to Spike<br>PsV Neutralization 50% Titer<br>PsV Neutralization 80% Titer | 22.59<br>23.29<br>10.46<br>10.25              |
|                               | Positive | D29 fold-rise over D1  | 148 | Binding Antibody to RBD<br>Binding Antibody to Spike<br>PsV Neutralization 50% Titer<br>PsV Neutralization 80% Titer | 16491.48<br>27081.18<br>78.36<br>177.67       |
|                               |          | D57 fold-rise over D1  | 148 | Binding Antibody to RBD<br>Binding Antibody to Spike<br>PsV Neutralization 50% Titer<br>PsV Neutralization 80% Titer | 924707.07<br>1549249.24<br>1074.78<br>2904.02 |
|                               |          | D57 fold-rise over D29 | 148 | Binding Antibody to RBD<br>Binding Antibody to Spike<br>PsV Neutralization 50% Titer<br>PsV Neutralization 80% Titer | 56.36<br>55.59<br>21.02<br>20.78              |
| Age $\geq$ 65 Not at-risk     | Negative | D29 fold-rise over D1  | 256 | Binding Antibody to RBD<br>Binding Antibody to Spike<br>PsV Neutralization 50% Titer<br>PsV Neutralization 80% Titer | 499.82<br>668.22<br>22.68<br>33.95            |
|                               |          | D57 fold-rise over D1  | 256 | Binding Antibody to RBD<br>Binding Antibody to Spike<br>PsV Neutralization 50% Titer<br>PsV Neutralization 80% Titer | 3561.57<br>5336.44<br>96.66<br>119.66         |
|                               |          | D57 fold-rise over D29 | 256 | Binding Antibody to RBD<br>Binding Antibody to Spike<br>PsV Neutralization 50% Titer<br>PsV Neutralization 80% Titer | 21.77<br>24.26<br>10.92<br>9.35               |
|                               | Positive | D29 fold-rise over D1  | 146 | Binding Antibody to RBD<br>Binding Antibody to Spike<br>PsV Neutralization 50% Titer<br>PsV Neutralization 80% Titer | 16900.44<br>27425.71<br>72.01<br>179.80       |

Table 2.25: Table 4d. Geometric mean titer ratios (GMTRs) or geometric mean concentrations (GMCRs) between post-vaccinations/pre-vaccination by Age, Risk for Severe Covid-19

| Group                    | Baseline | Visit                  | N   | Endpoint                     | GM  |
|--------------------------|----------|------------------------|-----|------------------------------|-----|
|                          |          | D57 fold-rise over D1  | 146 | Binding Antibody to RBD      | 882 |
|                          |          |                        |     | Binding Antibody to Spike    | 163 |
|                          |          |                        |     | PsV Neutralization 50% Titer | 111 |
|                          |          |                        |     | PsV Neutralization 80% Titer | 287 |
|                          |          | D57 fold-rise over D29 | 146 | Binding Antibody to RBD      | 53. |
|                          |          |                        |     | Binding Antibody to Spike    | 56. |
|                          |          |                        |     | PsV Neutralization 50% Titer | 19. |
|                          |          |                        |     | PsV Neutralization 80% Titer | 21. |
| Age $i = 65$ At-risk     | Negative | D29 fold-rise over D1  | 284 | Binding Antibody to RBD      | 976 |
|                          |          |                        |     | Binding Antibody to Spike    | 132 |
|                          |          |                        |     | PsV Neutralization 50% Titer | 36. |
|                          |          |                        |     | PsV Neutralization 80% Titer | 47. |
|                          |          | D57 fold-rise over D1  | 284 | Binding Antibody to RBD      | 731 |
|                          |          |                        |     | Binding Antibody to Spike    | 109 |
|                          |          |                        |     | PsV Neutralization 50% Titer | 168 |
|                          |          |                        |     | PsV Neutralization 80% Titer | 211 |
|                          |          | D57 fold-rise over D29 | 284 | Binding Antibody to RBD      | 23. |
|                          |          |                        |     | Binding Antibody to Spike    | 25. |
|                          |          |                        |     | PsV Neutralization 50% Titer | 11. |
|                          |          |                        |     | PsV Neutralization 80% Titer | 10. |
|                          | Positive | D29 fold-rise over D1  | 98  | Binding Antibody to RBD      | 691 |
|                          |          |                        |     | Binding Antibody to Spike    | 100 |
|                          |          |                        |     | PsV Neutralization 50% Titer | 245 |
|                          |          |                        |     | PsV Neutralization 80% Titer | 473 |
|                          |          | D57 fold-rise over D1  | 98  | Binding Antibody to RBD      | 556 |
|                          |          |                        |     | Binding Antibody to Spike    | 795 |
|                          |          |                        |     | PsV Neutralization 50% Titer | 719 |
|                          |          |                        |     | PsV Neutralization 80% Titer | 867 |
|                          |          | D57 fold-rise over D29 | 98  | Binding Antibody to RBD      | 82. |
|                          |          |                        |     | Binding Antibody to Spike    | 73. |
|                          |          |                        |     | PsV Neutralization 50% Titer | 36. |
|                          |          |                        |     | PsV Neutralization 80% Titer | 23. |
| Age $i = 65$ Not at-risk | Negative | D29 fold-rise over D1  | 265 | Binding Antibody to RBD      | 799 |
|                          |          |                        |     | Binding Antibody to Spike    | 103 |
|                          |          |                        |     | PsV Neutralization 50% Titer | 37. |
|                          |          |                        |     | PsV Neutralization 80% Titer | 46. |
|                          |          | D57 fold-rise over D1  | 265 | Binding Antibody to RBD      | 569 |
|                          |          |                        |     | Binding Antibody to Spike    | 821 |
|                          |          |                        |     | PsV Neutralization 50% Titer | 169 |
|                          |          |                        |     | PsV Neutralization 80% Titer | 160 |
|                          |          | D57 fold-rise over D29 | 265 | Binding Antibody to RBD      | 23. |
|                          |          |                        |     | Binding Antibody to Spike    | 26. |

Table 2.25: Table 4d. Geometric mean titer ratios (GMTRs) or geometric mean concentration ratios (GMCRs) between post-vaccinations/pre-vaccination by Age, Risk for Severe Covid-19 (continu)

| Group    | Baseline               | Visit | N                            | Endpoint   | GMTR/GMCR |
|----------|------------------------|-------|------------------------------|------------|-----------|
| Positive | D29 fold-rise over D1  | 151   | PsV Neutralization 50% Titer | 11.33      |           |
|          |                        |       | PsV Neutralization 80% Titer | 8.95       |           |
|          |                        |       | Binding Antibody to RBD      | 65536.14   |           |
|          |                        |       | Binding Antibody to Spike    | 120936.03  |           |
|          |                        |       | PsV Neutralization 50% Titer | 309.15     |           |
|          |                        |       | PsV Neutralization 80% Titer | 497.58     |           |
|          | D57 fold-rise over D1  | 151   | Binding Antibody to RBD      | 3951583.83 |           |
|          |                        |       | Binding Antibody to Spike    | 9609727.65 |           |
|          |                        |       | PsV Neutralization 50% Titer | 8049.02    |           |
|          |                        |       | PsV Neutralization 80% Titer | 9917.30    |           |
|          | D57 fold-rise over D29 | 151   | Binding Antibody to RBD      | 61.08      |           |
|          |                        |       | Binding Antibody to Spike    | 78.59      |           |
|          |                        |       | PsV Neutralization 50% Titer | 31.68      |           |
|          |                        |       | PsV Neutralization 80% Titer | 24.27      |           |

All calculations were weighted by the inverse probability sampling (IPS), defined based on the subcohort sampling strata.

Table 2.26: Table 4e. Geometric mean titer ratios (GMTRs) or geometric mean co-ratios (GMCRs) between post-vaccinations/pre-vaccination by Sex

| Group  | Baseline | Visit                  | N   | Endpoint                     | GM  |
|--------|----------|------------------------|-----|------------------------------|-----|
| Sex    |          |                        |     |                              |     |
| Female |          |                        |     |                              |     |
|        | Negative | D29 fold-rise over D1  | 597 | Binding Antibody to RBD      | 542 |
|        |          |                        |     | Binding Antibody to Spike    | 790 |
|        |          |                        |     | PsV Neutralization 50% Titer | 25. |
|        |          |                        |     | PsV Neutralization 80% Titer | 35. |
|        |          | D57 fold-rise over D1  | 597 | Binding Antibody to RBD      | 422 |
|        |          |                        |     | Binding Antibody to Spike    | 633 |
|        |          |                        |     | PsV Neutralization 50% Titer | 107 |
|        |          |                        |     | PsV Neutralization 80% Titer | 137 |
|        |          | D57 fold-rise over D29 | 597 | Binding Antibody to RBD      | 23. |
|        |          |                        |     | Binding Antibody to Spike    | 24. |
|        |          |                        |     | PsV Neutralization 50% Titer | 10. |
|        |          |                        |     | PsV Neutralization 80% Titer | 9.9 |
|        | Positive | D29 fold-rise over D1  | 298 | Binding Antibody to RBD      | 220 |
|        |          |                        |     | Binding Antibody to Spike    | 320 |
|        |          |                        |     | PsV Neutralization 50% Titer | 93. |
|        |          |                        |     | PsV Neutralization 80% Titer | 213 |
|        |          | D57 fold-rise over D1  | 298 | Binding Antibody to RBD      | 125 |
|        |          |                        |     | Binding Antibody to Spike    | 217 |
|        |          |                        |     | PsV Neutralization 50% Titer | 154 |
|        |          |                        |     | PsV Neutralization 80% Titer | 341 |
|        |          | D57 fold-rise over D29 | 298 | Binding Antibody to RBD      | 58. |
|        |          |                        |     | Binding Antibody to Spike    | 64. |
|        |          |                        |     | PsV Neutralization 50% Titer | 22. |
|        |          |                        |     | PsV Neutralization 80% Titer | 20. |
| Male   | Negative | D29 fold-rise over D1  | 465 | Binding Antibody to RBD      | 572 |
|        |          |                        |     | Binding Antibody to Spike    | 675 |
|        |          |                        |     | PsV Neutralization 50% Titer | 23. |
|        |          |                        |     | PsV Neutralization 80% Titer | 35. |
|        |          | D57 fold-rise over D1  | 465 | Binding Antibody to RBD      | 369 |
|        |          |                        |     | Binding Antibody to Spike    | 540 |
|        |          |                        |     | PsV Neutralization 50% Titer | 104 |
|        |          |                        |     | PsV Neutralization 80% Titer | 119 |
|        |          | D57 fold-rise over D29 | 465 | Binding Antibody to RBD      | 20. |
|        |          |                        |     | Binding Antibody to Spike    | 24. |
|        |          |                        |     | PsV Neutralization 50% Titer | 11. |
|        |          |                        |     | PsV Neutralization 80% Titer | 9.1 |
|        | Positive | D29 fold-rise over D1  | 245 | Binding Antibody to RBD      | 221 |
|        |          |                        |     | Binding Antibody to Spike    | 428 |
|        |          |                        |     | PsV Neutralization 50% Titer | 98. |
|        |          |                        |     | PsV Neutralization 80% Titer | 225 |

Table 2.26: Table 4e. Geometric mean titer ratios (GMTRs) or geometric mean concentration ratios (GMCRs) between post-vaccinations/pre-vaccination by Sex (continued)

| Group | Baseline               | Visit | N   | Endpoint                     | GMTR/GMCR  |
|-------|------------------------|-------|-----|------------------------------|------------|
|       | D57 fold-rise over D1  |       | 245 | Binding Antibody to RBD      | 1190973.05 |
|       |                        |       |     | Binding Antibody to Spike    | 2392593.05 |
|       |                        |       |     | PsV Neutralization 50% Titer | 1731.20    |
|       |                        |       |     | PsV Neutralization 80% Titer | 3951.26    |
|       | D57 fold-rise over D29 |       | 245 | Binding Antibody to RBD      | 53.96      |
|       |                        |       |     | Binding Antibody to Spike    | 54.33      |
|       |                        |       |     | PsV Neutralization 50% Titer | 21.79      |
|       |                        |       |     | PsV Neutralization 80% Titer | 23.49      |

All calculations were weighted by the inverse probability sampling (IPS), defined based on the subcohort sampling strata.

Table 2.27: Table 4f. Geometric mean titer ratios (GMTRs) or geometric mean concentrations (GMCRs) between post-vaccinations/pre-vaccination by Age, sex

| Group           | Baseline | Visit                  | N   | Endpoint   | GM                       |
|-----------------|----------|------------------------|-----|--|--------------------------|
| Age, sex        |          |                        |     |  |                          |
| Age ≥ 65 Female |          |                        |     |  |                          |
|                 | Negative | D29 fold-rise over D1  | 291 | Binding Antibody to RBD<br>Binding Antibody to Spike<br>PsV Neutralization 50% Titer<br>PsV Neutralization 80% Titer | 446<br>662<br>22.<br>32. |
|                 |          | D57 fold-rise over D1  | 291 | Binding Antibody to RBD<br>Binding Antibody to Spike<br>PsV Neutralization 50% Titer<br>PsV Neutralization 80% Titer | 343<br>508<br>89.<br>120 |
|                 |          | D57 fold-rise over D29 | 291 | Binding Antibody to RBD<br>Binding Antibody to Spike<br>PsV Neutralization 50% Titer<br>PsV Neutralization 80% Titer | 23.<br>23.<br>10.<br>9.8 |
|                 | Positive | D29 fold-rise over D1  | 166 | Binding Antibody to RBD<br>Binding Antibody to Spike<br>PsV Neutralization 50% Titer<br>PsV Neutralization 80% Titer | 171<br>246<br>74.<br>183 |
|                 |          | D57 fold-rise over D1  | 166 | Binding Antibody to RBD<br>Binding Antibody to Spike<br>PsV Neutralization 50% Titer<br>PsV Neutralization 80% Titer | 943<br>158<br>104<br>267 |
|                 |          | D57 fold-rise over D29 | 166 | Binding Antibody to RBD<br>Binding Antibody to Spike<br>PsV Neutralization 50% Titer<br>PsV Neutralization 80% Titer | 56.<br>61.<br>19.<br>18. |
| Age < 65 Male   |          |                        |     |  |                          |
|                 | Negative | D29 fold-rise over D1  | 222 | Binding Antibody to RBD<br>Binding Antibody to Spike<br>PsV Neutralization 50% Titer<br>PsV Neutralization 80% Titer | 550<br>641<br>21.<br>33. |
|                 |          | D57 fold-rise over D1  | 222 | Binding Antibody to RBD<br>Binding Antibody to Spike<br>PsV Neutralization 50% Titer<br>PsV Neutralization 80% Titer | 355<br>533<br>98.<br>112 |
|                 |          | D57 fold-rise over D29 | 222 | Binding Antibody to RBD<br>Binding Antibody to Spike<br>PsV Neutralization 50% Titer<br>PsV Neutralization 80% Titer | 20.<br>24.<br>11.<br>9.2 |
|                 | Positive | D29 fold-rise over D1  | 128 | Binding Antibody to RBD<br>Binding Antibody to Spike<br>PsV Neutralization 50% Titer<br>PsV Neutralization 80% Titer | 163<br>315<br>71.<br>174 |

Table 2.27: Table 4f. Geometric mean titer ratios (GMTRs) or geometric mean concentration ratios (GMCRs) between post-vaccinations/pre-vaccination by Age, sex (continued)

| Group               | Baseline               | Visit                  | N   | Endpoint                     | GMTR/GMCR  |
|---------------------|------------------------|------------------------|-----|------------------------------|------------|
| Age $i = 65$ Female | Negative               | D57 fold-rise over D1  | 128 | Binding Antibody to RBD      | 823023.51  |
|                     |                        |                        |     | Binding Antibody to Spike    | 1656343.31 |
|                     |                        |                        |     | PsV Neutralization 50% Titer | 1196.91    |
|                     |                        |                        |     | PsV Neutralization 80% Titer | 3184.76    |
|                     | Positive               | D57 fold-rise over D29 | 128 | Binding Antibody to RBD      | 50.39      |
|                     |                        |                        |     | Binding Antibody to Spike    | 50.69      |
|                     |                        |                        |     | PsV Neutralization 50% Titer | 20.66      |
|                     |                        |                        |     | PsV Neutralization 80% Titer | 24.12      |
|                     | D29 fold-rise over D1  |                        | 306 | Binding Antibody to RBD      | 1153.43    |
|                     |                        |                        |     | Binding Antibody to Spike    | 1631.88    |
|                     |                        |                        |     | PsV Neutralization 50% Titer | 41.90      |
|                     |                        |                        |     | PsV Neutralization 80% Titer | 52.79      |
|                     | D29 fold-rise over D1  | D57 fold-rise over D1  | 306 | Binding Antibody to RBD      | 9395.49    |
|                     |                        |                        |     | Binding Antibody to Spike    | 14906.94   |
|                     |                        |                        |     | PsV Neutralization 50% Titer | 216.59     |
|                     |                        |                        |     | PsV Neutralization 80% Titer | 229.98     |
|                     | D29 fold-rise over D29 | D57 fold-rise over D29 | 306 | Binding Antibody to RBD      | 25.18      |
|                     |                        |                        |     | Binding Antibody to Spike    | 26.46      |
|                     |                        |                        |     | PsV Neutralization 50% Titer | 12.04      |
|                     |                        |                        |     | PsV Neutralization 80% Titer | 10.54      |
|                     | Positive               | D29 fold-rise over D1  | 132 | Binding Antibody to RBD      | 65617.70   |
|                     |                        |                        |     | Binding Antibody to Spike    | 102214.88  |
|                     |                        |                        |     | PsV Neutralization 50% Titer | 258.26     |
|                     |                        |                        |     | PsV Neutralization 80% Titer | 417.22     |
|                     | D29 fold-rise over D1  | D57 fold-rise over D1  | 132 | Binding Antibody to RBD      | 4439677.78 |
|                     |                        |                        |     | Binding Antibody to Spike    | 8680593.01 |
|                     |                        |                        |     | PsV Neutralization 50% Titer | 8713.68    |
|                     |                        |                        |     | PsV Neutralization 80% Titer | 10066.53   |
|                     | D29 fold-rise over D29 | D57 fold-rise over D29 | 132 | Binding Antibody to RBD      | 68.09      |
|                     |                        |                        |     | Binding Antibody to Spike    | 83.10      |
|                     |                        |                        |     | PsV Neutralization 50% Titer | 40.98      |
|                     |                        |                        |     | PsV Neutralization 80% Titer | 26.57      |
| Age $i = 65$ Male   | Negative               | D29 fold-rise over D1  | 243 | Binding Antibody to RBD      | 652.29     |
|                     |                        |                        |     | Binding Antibody to Spike    | 802.79     |
|                     |                        |                        |     | PsV Neutralization 50% Titer | 31.46      |
|                     | D29 fold-rise over D1  | D57 fold-rise over D1  | 243 | Binding Antibody to RBD      | 4207.95    |
|                     |                        |                        |     | Binding Antibody to Spike    | 5664.02    |
|                     |                        |                        |     | PsV Neutralization 50% Titer | 127.35     |
|                     | D29 fold-rise over D29 | D57 fold-rise over D29 | 243 | Binding Antibody to RBD      | 142.60     |
|                     |                        |                        |     | Binding Antibody to Spike    | 21.83      |

Table 2.27: Table 4f. Geometric mean titer ratios (GMTRs) or geometric mean concentrations (GMCRs) between post-vaccinations/pre-vaccination by Age, sex (continued)

| Group    | Baseline               | Visit | N   | Endpoint                     | GM  |
|----------|------------------------|-------|-----|------------------------------|-----|
|          |                        |       |     | PsV Neutralization 50% Titer | 10. |
|          |                        |       |     | PsV Neutralization 80% Titer | 9.0 |
| Positive | D29 fold-rise over D1  |       | 117 | Binding Antibody to RBD      | 684 |
|          |                        |       |     | Binding Antibody to Spike    | 131 |
|          |                        |       |     | PsV Neutralization 50% Titer | 312 |
|          |                        |       |     | PsV Neutralization 80% Titer | 583 |
|          | D57 fold-rise over D1  |       | 117 | Binding Antibody to RBD      | 461 |
|          |                        |       |     | Binding Antibody to Spike    | 920 |
|          |                        |       |     | PsV Neutralization 50% Titer | 669 |
|          |                        |       |     | PsV Neutralization 80% Titer | 870 |
|          | D57 fold-rise over D29 |       | 117 | Binding Antibody to RBD      | 69. |
|          |                        |       |     | Binding Antibody to Spike    | 70. |
|          |                        |       |     | PsV Neutralization 50% Titer | 26. |
|          |                        |       |     | PsV Neutralization 80% Titer | 21. |

All calculations were weighted by the inverse probability sampling (IPS), defined based on the subcohort sample size.

Table 2.28: Table 4g. Geometric mean titer ratios (GMTRs) or geometric mean concentrations ratios (GMCRs) between post-vaccinations/pre-vaccination by Hispanic or Latino ethnicity

| Group                        | Baseline              | Visit  | N  | Endpoint                                 | GMTR/GMCR |
|------------------------------|-----------------------|--|--|--|-----------|
| Hispanic or Latino ethnicity |                       |  |  |  |           |
| Hispanic or Latino           |                       |  |  |  |           |
| Negative                     | D29 fold-rise over D1 | 125  | Binding Antibody to RBD<br>Binding Antibody to Spike<br>PsV Neutralization 50% Titer<br>PsV Neutralization 80% Titer | 352.86<br>509.78<br>18.37<br>25.04       |           |
| D57 fold-rise over D1        | 125                   | Binding Antibody to RBD<br>Binding Antibody to Spike<br>PsV Neutralization 50% Titer<br>PsV Neutralization 80% Titer | 2020.32<br>3202.02<br>79.45<br>70.70   |  |           |
| D57 fold-rise over D29       | 125                   | Binding Antibody to RBD<br>Binding Antibody to Spike<br>PsV Neutralization 50% Titer<br>PsV Neutralization 80% Titer | 19.39<br>22.00<br>11.51<br>8.29  |  |           |
| Positive                     | D29 fold-rise over D1 | 77   | Binding Antibody to RBD<br>Binding Antibody to Spike<br>PsV Neutralization 50% Titer<br>PsV Neutralization 80% Titer | 29174.13<br>31003.47<br>102.24<br>186.60 |           |
| D57 fold-rise over D1        | 77                    | Binding Antibody to RBD<br>Binding Antibody to Spike<br>PsV Neutralization 50% Titer<br>PsV Neutralization 80% Titer | 1880589.79<br>2085701.16<br>1965.39<br>3050.81   |  |           |
| D57 fold-rise over D29       | 77                    | Binding Antibody to RBD<br>Binding Antibody to Spike<br>PsV Neutralization 50% Titer<br>PsV Neutralization 80% Titer | 62.19<br>64.94<br>22.23<br>22.58   |  |           |
| Not Hispanic or Latino       |                       |  |  |  |           |
| Negative                     | D29 fold-rise over D1 | 844  | Binding Antibody to RBD<br>Binding Antibody to Spike<br>PsV Neutralization 50% Titer<br>PsV Neutralization 80% Titer | 667.83<br>876.97<br>26.46<br>39.31       |           |
| D57 fold-rise over D1        | 844                   | Binding Antibody to RBD<br>Binding Antibody to Spike<br>PsV Neutralization 50% Titer<br>PsV Neutralization 80% Titer | 5172.82<br>7417.66<br>121.19<br>156.84   |  |           |
| D57 fold-rise over D29       | 844                   | Binding Antibody to RBD<br>Binding Antibody to Spike<br>PsV Neutralization 50% Titer<br>PsV Neutralization 80% Titer | 23.09<br>24.62<br>11.09<br>10.08   |  |           |
| Positive                     | D29 fold-rise over D1 | 406  | Binding Antibody to RBD<br>Binding Antibody to Spike<br>PsV Neutralization 50% Titer<br>PsV Neutralization 80% Titer | 21022.34<br>37716.26<br>95.46<br>222.23  |           |

Table 2.28: Table 4g. Geometric mean titer ratios (GMTRs) or geometric mean concentrations (GMCRs) between post-vaccinations/pre-vaccination by Hispanic or Latino ethnicity

| Group                    | Baseline | Visit                  | N   | Endpoint                     | GM  |
|--------------------------|----------|------------------------|-----|------------------------------|-----|
|                          |          | D57 fold-rise over D1  | 406 | Binding Antibody to RBD      | 117 |
|                          |          |                        |     | Binding Antibody to Spike    | 217 |
|                          |          |                        |     | PsV Neutralization 50% Titer | 161 |
|                          |          |                        |     | PsV Neutralization 80% Titer | 404 |
|                          |          | D57 fold-rise over D29 | 406 | Binding Antibody to RBD      | 56. |
|                          |          |                        |     | Binding Antibody to Spike    | 55. |
|                          |          |                        |     | PsV Neutralization 50% Titer | 21. |
|                          |          |                        |     | PsV Neutralization 80% Titer | 22. |
| Not reported and unknown | Negative | D29 fold-rise over D1  | 93  | Binding Antibody to RBD      | 228 |
|                          |          |                        |     | Binding Antibody to Spike    | 313 |
|                          |          |                        |     | PsV Neutralization 50% Titer | 17. |
|                          |          |                        |     | PsV Neutralization 80% Titer | 23. |
|                          |          | D57 fold-rise over D1  | 93  | Binding Antibody to RBD      | 116 |
|                          |          |                        |     | Binding Antibody to Spike    | 208 |
|                          |          |                        |     | PsV Neutralization 50% Titer | 52. |
|                          |          |                        |     | PsV Neutralization 80% Titer | 57. |
|                          |          | D57 fold-rise over D29 | 93  | Binding Antibody to RBD      | 19. |
|                          |          |                        |     | Binding Antibody to Spike    | 25. |
|                          |          |                        |     | PsV Neutralization 50% Titer | 9.0 |
|                          |          |                        |     | PsV Neutralization 80% Titer | 7.6 |
| Positive                 |          | D29 fold-rise over D1  | 60  | Binding Antibody to RBD      | 201 |
|                          |          |                        |     | Binding Antibody to Spike    | 358 |
|                          |          |                        |     | PsV Neutralization 50% Titer | 87. |
|                          |          |                        |     | PsV Neutralization 80% Titer | 249 |
|                          |          | D57 fold-rise over D1  | 60  | Binding Antibody to RBD      | 861 |
|                          |          |                        |     | Binding Antibody to Spike    | 343 |
|                          |          |                        |     | PsV Neutralization 50% Titer | 125 |
|                          |          |                        |     | PsV Neutralization 80% Titer | 231 |
|                          |          | D57 fold-rise over D29 | 60  | Binding Antibody to RBD      | 45. |
|                          |          |                        |     | Binding Antibody to Spike    | 94. |
|                          |          |                        |     | PsV Neutralization 50% Titer | 24. |
|                          |          |                        |     | PsV Neutralization 80% Titer | 15. |

All calculations were weighted by the inverse probability sampling (IPS), defined based on the subcohort sample size.

Table 2.29: Table 4h. Geometric mean titer ratios (GMTRs) or geometric mean concentration ratios (GMCRs) between post-vaccinations/pre-vaccination by Race

| Group                            |                        | Baseline               | Visit | N | Endpoint   | GMTR/GMCR                                      |
|----------------------------------|------------------------|------------------------|-------|---|--|--|
| Race                             |                        |                        |       |   |  |  |
| Not reported and unknown         | Negative               | D29 fold-rise over D1  | 98    |   | Binding Antibody to RBD<br>Binding Antibody to Spike<br>PsV Neutralization 50% Titer<br>PsV Neutralization 80% Titer | 421.00<br>613.97<br>20.05<br>36.46             |
|                                  |                        | D57 fold-rise over D1  | 98    |   | Binding Antibody to RBD<br>Binding Antibody to Spike<br>PsV Neutralization 50% Titer<br>PsV Neutralization 80% Titer | 3012.94<br>3788.43<br>96.94<br>127.96          |
|                                  |                        | D57 fold-rise over D29 | 98    |   | Binding Antibody to RBD<br>Binding Antibody to Spike<br>PsV Neutralization 50% Titer<br>PsV Neutralization 80% Titer | 22.86<br>19.90<br>12.06<br>10.42               |
| Positive                         | D29 fold-rise over D1  | 48                     |       |   | Binding Antibody to RBD<br>Binding Antibody to Spike<br>PsV Neutralization 50% Titer<br>PsV Neutralization 80% Titer | 27507.44<br>41982.38<br>115.25<br>262.75       |
|                                  | D57 fold-rise over D1  | 48                     |       |   | Binding Antibody to RBD<br>Binding Antibody to Spike<br>PsV Neutralization 50% Titer<br>PsV Neutralization 80% Titer | 1644385.58<br>2148611.41<br>3182.34<br>2980.20 |
|                                  | D57 fold-rise over D29 | 48                     |       |   | Binding Antibody to RBD<br>Binding Antibody to Spike<br>PsV Neutralization 50% Titer<br>PsV Neutralization 80% Titer | 56.59<br>51.93<br>27.13<br>18.66               |
| American Indian or Alaska Native | Negative               | D29 fold-rise over D1  | 27    |   | Binding Antibody to RBD<br>Binding Antibody to Spike<br>PsV Neutralization 50% Titer<br>PsV Neutralization 80% Titer | 386.89<br>713.05<br>22.72<br>29.97             |
|                                  |                        | D57 fold-rise over D1  | 27    |   | Binding Antibody to RBD<br>Binding Antibody to Spike<br>PsV Neutralization 50% Titer<br>PsV Neutralization 80% Titer | 3014.32<br>4981.13<br>122.32<br>132.15         |
|                                  |                        | D57 fold-rise over D29 | 27    |   | Binding Antibody to RBD<br>Binding Antibody to Spike<br>PsV Neutralization 50% Titer<br>PsV Neutralization 80% Titer | 25.44<br>20.82<br>13.03<br>10.69               |
| Positive                         | D29 fold-rise over D1  | 17                     |       |   | Binding Antibody to RBD<br>Binding Antibody to Spike<br>PsV Neutralization 50% Titer                                 | 21904.15<br>41435.07<br>90.91                  |

Table 2.29: Table 4h. Geometric mean titer ratios (GMTRs) or geometric mean ratios (GMCRs) between post-vaccinations/pre-vaccination by Race (continued)

| Group | Baseline                  | Visit                  | N                            | Endpoint                     | GM  |
|-------|---------------------------|------------------------|------------------------------|------------------------------|-----|
| Asian | Negative                  | D57 fold-rise over D1  | 17                           | PsV Neutralization 80% Titer | 182 |
|       |                           |                        |                              | Binding Antibody to RBD      | 589 |
|       |                           |                        |                              | Binding Antibody to Spike    | 360 |
|       |                           |                        |                              | PsV Neutralization 50% Titer | 224 |
|       | Positive                  | D57 fold-rise over D29 | 17                           | PsV Neutralization 80% Titer | 447 |
|       |                           |                        |                              | Binding Antibody to RBD      | 29. |
|       |                           |                        |                              | Binding Antibody to Spike    | 88. |
|       |                           |                        |                              | PsV Neutralization 50% Titer | 27. |
|       |                           | D29 fold-rise over D1  | 84                           | PsV Neutralization 80% Titer | 21. |
|       |                           |                        |                              | Binding Antibody to RBD      | 861 |
|       | Black or African American |                        |                              | Binding Antibody to Spike    | 120 |
|       | D57 fold-rise over D1     | 84                     | PsV Neutralization 50% Titer | 30.                          |     |
|       |                           |                        | PsV Neutralization 80% Titer | 50.                          |     |
|       | D57 fold-rise over D29    | 84                     | Binding Antibody to RBD      | 609                          |     |
|       |                           |                        | Binding Antibody to Spike    | 130                          |     |
|       | D29 fold-rise over D1     | 46                     | PsV Neutralization 50% Titer | 201                          |     |
|       |                           |                        | PsV Neutralization 80% Titer | 210                          |     |
|       | D57 fold-rise over D29    | 46                     | Binding Antibody to RBD      | 19.                          |     |
|       |                           |                        | Binding Antibody to Spike    | 28.                          |     |
|       | Positive                  | 46                     | PsV Neutralization 50% Titer | 16.                          |     |
|       |                           |                        | PsV Neutralization 80% Titer | 9.7                          |     |
|       | Black or African American | Negative               | D57 fold-rise over D1        | Binding Antibody to RBD      | 140 |
|       |                           |                        |                              | Binding Antibody to Spike    | 357 |
|       |                           |                        | D29 fold-rise over D1        | PsV Neutralization 50% Titer | 52. |
|       |                           |                        |                              | PsV Neutralization 80% Titer | 167 |
|       |                           | Positive               | D57 fold-rise over D1        | Binding Antibody to RBD      | 685 |
|       |                           |                        |                              | Binding Antibody to Spike    | 194 |
|       |                           |                        | D29 fold-rise over D1        | PsV Neutralization 50% Titer | 114 |
|       |                           |                        |                              | PsV Neutralization 80% Titer | 265 |
|       |                           | D57 fold-rise over D29 | 46                           | Binding Antibody to RBD      | 49. |
|       |                           |                        |                              | Binding Antibody to Spike    | 53. |
|       |                           |                        | 46                           | PsV Neutralization 50% Titer | 23. |
|       |                           |                        |                              | PsV Neutralization 80% Titer | 20. |
|       |                           | Negative               | D29 fold-rise over D1        | Binding Antibody to RBD      | 544 |
|       |                           |                        |                              | Binding Antibody to Spike    | 706 |
|       |                           |                        | D57 fold-rise over D1        | PsV Neutralization 50% Titer | 24. |
|       |                           |                        |                              | PsV Neutralization 80% Titer | 30. |
|       |                           | Positive               | D57 fold-rise over D1        | Binding Antibody to RBD      | 412 |
|       |                           |                        |                              | Binding Antibody to Spike    | 587 |
|       |                           |                        | D29 fold-rise over D1        | PsV Neutralization 50% Titer | 101 |
|       |                           |                        |                              | PsV Neutralization 80% Titer | 115 |
|       |                           | D57 fold-rise over D29 | 216                          | Binding Antibody to RBD      | 23. |

Table 2.29: Table 4h. Geometric mean titer ratios (GMTRs) or geometric mean concentration ratios (GMCRs) between post-vaccinations/pre-vaccination by Race (continued)

| Group                                     |                         | Baseline              | Visit                        | N                            | Endpoint | GMTR/GMCR |
|---|-------------------------|-----------------------|------------------------------|------------------------------|----------|-----------|
| White                                     | Positive                | D29 fold-rise over D1 | 91                           | Binding Antibody to Spike    | 25.12    |           |
|   |                         |                       |                              | PsV Neutralization 50% Titer | 10.60    |           |
|   |                         |                       |                              | PsV Neutralization 80% Titer | 9.51     |           |
|   | D57 fold-rise over D1   | 91                    | Binding Antibody to RBD      | 22493.30                     |          |           |
|   |                         |                       | Binding Antibody to Spike    | 29535.35                     |          |           |
|   |                         |                       | PsV Neutralization 50% Titer | 81.14                        |          |           |
|   | D57 fold-rise over D29  | 91                    | PsV Neutralization 80% Titer | 281.79                       |          |           |
|   |                         |                       | Binding Antibody to RBD      | 1131288.91                   |          |           |
|   |                         |                       | Binding Antibody to Spike    | 1683482.75                   |          |           |
| Multiracial                               | Negative                | D29 fold-rise over D1 | 62                           | PsV Neutralization 50% Titer | 1372.25  |           |
|   |                         |                       |                              | PsV Neutralization 80% Titer | 4096.94  |           |
|   |                         |                       |                              | Binding Antibody to RBD      | 48.41    |           |
|   | D57 fold-rise over D1   | 62                    | Binding Antibody to Spike    | 52.28                        |          |           |
|   |                         |                       | PsV Neutralization 50% Titer | 23.39                        |          |           |
|   |                         |                       | PsV Neutralization 80% Titer | 17.99                        |          |           |
|   | D57 fold-rise over D29  | 62                    | Binding Antibody to RBD      | 157.76                       |          |           |
|   |                         |                       | Binding Antibody to Spike    | 212.67                       |          |           |
|   |                         |                       | PsV Neutralization 50% Titer | 14.32                        |          |           |
| Asian                                     | Positive                | D29 fold-rise over D1 | 28                           | PsV Neutralization 80% Titer | 19.83    |           |
|   |                         |                       |                              | Binding Antibody to RBD      | 684.26   |           |
|   |                         |                       |                              | Binding Antibody to Spike    | 988.34   |           |
|   | D57 fold-rise over D1   | 28                    | PsV Neutralization 50% Titer | 41.69                        |          |           |
|   |                         |                       | PsV Neutralization 80% Titer | 39.35                        |          |           |
|   |                         |                       | Binding Antibody to RBD      | 18.52                        |          |           |
|   | D57 fold-rise over D29  | 28                    | Binding Antibody to Spike    | 19.77                        |          |           |
|   |                         |                       | PsV Neutralization 50% Titer | 9.80                         |          |           |
|   |                         |                       | PsV Neutralization 80% Titer | 7.01                         |          |           |
| Native Hawaiian or Other Pacific Islander | Negative                | D29 fold-rise over D1 | 20                           | Binding Antibody to RBD      | 43692.65 |           |
|   |                         |                       |                              | Binding Antibody to Spike    | 34705.72 |           |
|   |                         |                       |                              | PsV Neutralization 50% Titer | 142.97   |           |
|   | D57 fold-rise over D1   | 28                    | PsV Neutralization 80% Titer | 294.77                       |          |           |
|   |                         |                       | Binding Antibody to RBD      | 3321276.27                   |          |           |
|   |                         |                       | Binding Antibody to Spike    | 3028697.60                   |          |           |
|   | D57 fold-rise over D29  | 28                    | PsV Neutralization 50% Titer | 1683.56                      |          |           |
|   |                         |                       | PsV Neutralization 80% Titer | 6969.92                      |          |           |
|   |                         |                       | Binding Antibody to RBD      | 74.45                        |          |           |
|   | D29 fold-rise over D1   | 20                    | Binding Antibody to Spike    | 80.20                        |          |           |
|   |                         |                       | PsV Neutralization 50% Titer | 19.06                        |          |           |
|   |                         |                       | PsV Neutralization 80% Titer | 27.17                        |          |           |
|   | Binding Antibody to RBD | 1944.56               | Binding Antibody to Spike    | 2287.99                      |          |           |

Table 2.29: Table 4h. Geometric mean titer ratios (GMTRs) or geometric mean ratios (GMCRs) between post-vaccinations/pre-vaccination by Race (continued)

| Group | Baseline               | Visit                 | N  | Endpoint                     | GM   |
|-------|------------------------|-----------------------|----|------------------------------|------|
|       |                        |                       |    | PsV Neutralization 50% Titer | 43.  |
|       |                        |                       |    | PsV Neutralization 80% Titer | 79.  |
|       | D57 fold-rise over D1  |                       | 20 | Binding Antibody to RBD      | 193. |
|       |                        |                       |    | Binding Antibody to Spike    | 351. |
|       |                        |                       |    | PsV Neutralization 50% Titer | 324. |
|       |                        |                       |    | PsV Neutralization 80% Titer | 425. |
|       | D57 fold-rise over D29 |                       | 20 | Binding Antibody to RBD      | 23.  |
|       |                        |                       |    | Binding Antibody to Spike    | 33.  |
|       |                        |                       |    | PsV Neutralization 50% Titer | 12.  |
|       |                        |                       |    | PsV Neutralization 80% Titer | 12.  |
|       | Positive               | D29 fold-rise over D1 | 7  | Binding Antibody to RBD      | 478. |
|       |                        |                       |    | Binding Antibody to Spike    | 532. |
|       |                        |                       |    | PsV Neutralization 50% Titer | 95.  |
|       |                        |                       |    | PsV Neutralization 80% Titer | 249. |
|       | D57 fold-rise over D1  |                       | 7  | Binding Antibody to RBD      | 253. |
|       |                        |                       |    | Binding Antibody to Spike    | 190. |
|       |                        |                       |    | PsV Neutralization 50% Titer | 775. |
|       |                        |                       |    | PsV Neutralization 80% Titer | 155. |
|       | D57 fold-rise over D29 |                       | 7  | Binding Antibody to RBD      | 51.  |
|       |                        |                       |    | Binding Antibody to Spike    | 28.  |
|       |                        |                       |    | PsV Neutralization 50% Titer | 13.  |
|       |                        |                       |    | PsV Neutralization 80% Titer | 59.  |
| Other | Negative               | D29 fold-rise over D1 | 28 | Binding Antibody to RBD      | 562. |
|       |                        |                       |    | Binding Antibody to Spike    | 762. |
|       |                        |                       |    | PsV Neutralization 50% Titer | 60.  |
|       |                        |                       |    | PsV Neutralization 80% Titer | 55.  |
|       | D57 fold-rise over D1  |                       | 28 | Binding Antibody to RBD      | 995. |
|       |                        |                       |    | Binding Antibody to Spike    | 232. |
|       |                        |                       |    | PsV Neutralization 50% Titer | 538. |
|       |                        |                       |    | PsV Neutralization 80% Titer | 305. |
|       | D57 fold-rise over D29 |                       | 28 | Binding Antibody to RBD      | 30.  |
|       |                        |                       |    | Binding Antibody to Spike    | 47.  |
|       |                        |                       |    | PsV Neutralization 50% Titer | 14.  |
|       |                        |                       |    | PsV Neutralization 80% Titer | 11.  |
|       | Positive               | D29 fold-rise over D1 | 24 | Binding Antibody to RBD      | 288. |
|       |                        |                       |    | Binding Antibody to Spike    | 315. |
|       |                        |                       |    | PsV Neutralization 50% Titer | 108. |
|       |                        |                       |    | PsV Neutralization 80% Titer | 98.  |
|       | D57 fold-rise over D1  |                       | 24 | Binding Antibody to RBD      | 137. |
|       |                        |                       |    | Binding Antibody to Spike    | 202. |
|       |                        |                       |    | PsV Neutralization 50% Titer | 227. |
|       |                        |                       |    | PsV Neutralization 80% Titer | 178. |

Table 2.29: Table 4h. Geometric mean titer ratios (GMTRs) or geometric mean concentration ratios (GMCRs) between post-vaccinations/pre-vaccination by Race (continued)

| Group              | Baseline | Visit                  | N   | Endpoint                     | GMTR/GMCR  |
|--------------------|----------|------------------------|-----|------------------------------|------------|
| White              | Negative | D57 fold-rise over D29 | 24  | Binding Antibody to RBD      | 46.49      |
|                    |          |                        |     | Binding Antibody to Spike    | 59.15      |
|                    |          |                        |     | PsV Neutralization 50% Titer | 27.85      |
|                    |          |                        |     | PsV Neutralization 80% Titer | 27.42      |
|                    |          | D29 fold-rise over D1  | 43  | Binding Antibody to RBD      | 295.10     |
|                    |          |                        |     | Binding Antibody to Spike    | 476.61     |
|                    | Positive | D57 fold-rise over D1  | 43  | PsV Neutralization 50% Titer | 20.62      |
|                    |          |                        |     | PsV Neutralization 80% Titer | 36.21      |
|                    |          | D57 fold-rise over D29 | 43  | Binding Antibody to RBD      | 2118.26    |
|                    |          |                        |     | Binding Antibody to Spike    | 4228.05    |
|                    |          |                        |     | PsV Neutralization 50% Titer | 57.67      |
|                    |          |                        |     | PsV Neutralization 80% Titer | 81.91      |
| White Non-Hispanic | Negative | D29 fold-rise over D1  | 38  | Binding Antibody to RBD      | 24.10      |
|                    |          |                        |     | Binding Antibody to Spike    | 30.04      |
|                    |          |                        |     | PsV Neutralization 50% Titer | 8.44       |
|                    |          |                        |     | PsV Neutralization 80% Titer | 6.82       |
|                    |          | D57 fold-rise over D1  | 38  | Binding Antibody to RBD      | 22744.80   |
|                    |          |                        |     | Binding Antibody to Spike    | 41650.95   |
|                    | Positive | D57 fold-rise over D1  | 38  | PsV Neutralization 50% Titer | 127.07     |
|                    |          |                        |     | PsV Neutralization 80% Titer | 268.34     |
|                    |          | D57 fold-rise over D29 | 38  | Binding Antibody to RBD      | 1032251.91 |
|                    |          |                        |     | Binding Antibody to Spike    | 4232833.71 |
|                    |          |                        |     | PsV Neutralization 50% Titer | 1403.07    |
|                    |          |                        |     | PsV Neutralization 80% Titer | 2613.51    |
|                    | Negative | D57 fold-rise over D29 | 38  | Binding Antibody to RBD      | 47.76      |
|                    |          |                        |     | Binding Antibody to Spike    | 98.94      |
|                    |          |                        |     | PsV Neutralization 50% Titer | 21.70      |
|                    |          |                        |     | PsV Neutralization 80% Titer | 17.41      |
|                    |          | D29 fold-rise over D1  | 456 | Binding Antibody to RBD      | 662.84     |
|                    |          |                        |     | Binding Antibody to Spike    | 836.46     |
|                    | Positive | D57 fold-rise over D1  | 456 | PsV Neutralization 50% Titer | 26.16      |
|                    |          |                        |     | PsV Neutralization 80% Titer | 38.69      |
|                    |          | D57 fold-rise over D29 | 456 | Binding Antibody to RBD      | 4836.36    |
|                    |          |                        |     | Binding Antibody to Spike    | 6806.21    |
|                    |          |                        |     | PsV Neutralization 50% Titer | 112.20     |
|                    |          |                        |     | PsV Neutralization 80% Titer | 153.89     |
|                    | Negative | D57 fold-rise over D29 | 456 | Binding Antibody to RBD      | 22.31      |
|                    |          |                        |     | Binding Antibody to Spike    | 24.46      |
|                    | Positive | D29 fold-rise over D1  | 224 | PsV Neutralization 50% Titer | 10.34      |
|                    |          |                        |     | PsV Neutralization 80% Titer | 10.05      |
|                    | Positive | D29 fold-rise over D1  | 224 | Binding Antibody to RBD      | 18243.12   |
|                    |          |                        |     | Binding Antibody to Spike    | 36804.59   |

Table 2.29: Table 4h. Geometric mean titer ratios (GMTRs) or geometric mean ratios (GMCRs) between post-vaccinations/pre-vaccination by Race (continued)

| Group | Baseline               | Visit | N   | Endpoint                     | GM   |
|-------|------------------------|-------|-----|------------------------------|------|
|       |                        |       |     | PsV Neutralization 50% Titer | 96.  |
|       |                        |       |     | PsV Neutralization 80% Titer | 201. |
|       | D57 fold-rise over D1  |       | 224 | Binding Antibody to RBD      | 111. |
|       |                        |       |     | Binding Antibody to Spike    | 211. |
|       |                        |       |     | PsV Neutralization 50% Titer | 157. |
|       |                        |       |     | PsV Neutralization 80% Titer | 384. |
|       | D57 fold-rise over D29 |       | 224 | Binding Antibody to RBD      | 66.  |
|       |                        |       |     | Binding Antibody to Spike    | 56.  |
|       |                        |       |     | PsV Neutralization 50% Titer | 21.  |
|       |                        |       |     | PsV Neutralization 80% Titer | 23.  |

All calculations were weighted by the inverse probability sampling (IPS), defined based on the subcohort sample.

Table 2.30: Table 4i. Geometric mean titer ratios (GMTRs) or geometric mean concentration ratios (GMCRs) between post-vaccinations/pre-vaccination by Race and ethnic group

| Group                 | Baseline | Visit                  | N   | Endpoint   | GMTR/GMCR                                      |
|-----------------------|----------|------------------------|-----|--|--|
| Race and ethnic group |          |                        |     |  |  |
| White Non-Hispanic    |          |                        |     |  |  |
|                       | Negative | D29 fold-rise over D1  | 456 | Binding Antibody to RBD<br>Binding Antibody to Spike<br>PsV Neutralization 50% Titer<br>PsV Neutralization 80% Titer | 662.84<br>836.46<br>26.16<br>38.69             |
|                       |          | D57 fold-rise over D1  | 456 | Binding Antibody to RBD<br>Binding Antibody to Spike<br>PsV Neutralization 50% Titer<br>PsV Neutralization 80% Titer | 4836.36<br>6806.21<br>112.20<br>153.89         |
|                       |          | D57 fold-rise over D29 | 456 | Binding Antibody to RBD<br>Binding Antibody to Spike<br>PsV Neutralization 50% Titer<br>PsV Neutralization 80% Titer | 22.31<br>24.46<br>10.34<br>10.05               |
|                       | Positive | D29 fold-rise over D1  | 224 | Binding Antibody to RBD<br>Binding Antibody to Spike<br>PsV Neutralization 50% Titer<br>PsV Neutralization 80% Titer | 18243.12<br>36804.59<br>96.37<br>201.23        |
|                       |          | D57 fold-rise over D1  | 224 | Binding Antibody to RBD<br>Binding Antibody to Spike<br>PsV Neutralization 50% Titer<br>PsV Neutralization 80% Titer | 1119992.35<br>2116938.10<br>1573.83<br>3847.47 |
|                       |          | D57 fold-rise over D29 | 224 | Binding Antibody to RBD<br>Binding Antibody to Spike<br>PsV Neutralization 50% Titer<br>PsV Neutralization 80% Titer | 66.01<br>56.23<br>21.36<br>23.51               |
| Communities of Color  | Negative | D29 fold-rise over D1  | 535 | Binding Antibody to RBD<br>Binding Antibody to Spike<br>PsV Neutralization 50% Titer<br>PsV Neutralization 80% Titer | 504.80<br>691.42<br>23.29<br>33.32             |
|                       |          | D57 fold-rise over D1  | 535 | Binding Antibody to RBD<br>Binding Antibody to Spike<br>PsV Neutralization 50% Titer<br>PsV Neutralization 80% Titer | 3570.14<br>5444.02<br>106.96<br>117.71         |
|                       |          | D57 fold-rise over D29 | 535 | Binding Antibody to RBD<br>Binding Antibody to Spike<br>PsV Neutralization 50% Titer<br>PsV Neutralization 80% Titer | 22.15<br>24.04<br>11.69<br>9.45                |
|                       | Positive | D29 fold-rise over D1  | 261 | Binding Antibody to RBD<br>Binding Antibody to Spike<br>PsV Neutralization 50% Titer<br>PsV Neutralization 80% Titer | 24128.55<br>34415.59<br>88.91<br>218.94        |

Table 2.30: Table 4i. Geometric mean titer ratios (GMTRs) or geometric mean concentrations (GMCs) between post-vaccinations/pre-vaccination by Race and ethnic group (continued)

| Group | Baseline               | Visit | N   | Endpoint                     | GM  |
|-------|------------------------|-------|-----|------------------------------|-----|
|       | D57 fold-rise over D1  |       | 261 | Binding Antibody to RBD      | 124 |
|       |                        |       |     | Binding Antibody to Spike    | 208 |
|       |                        |       |     | PsV Neutralization 50% Titer | 169 |
|       |                        |       |     | PsV Neutralization 80% Titer | 359 |
|       | D57 fold-rise over D29 |       | 261 | Binding Antibody to RBD      | 50. |
|       |                        |       |     | Binding Antibody to Spike    | 57. |
|       |                        |       |     | PsV Neutralization 50% Titer | 23. |
|       |                        |       |     | PsV Neutralization 80% Titer | 21. |

All calculations were weighted by the inverse probability sampling (IPS), defined based on the subcohort sample.

Table 2.31: Table 4j. Geometric mean titer ratios (GMTRs) or geometric mean concentration ratios (GMCRs) between post-vaccinations/pre-vaccination by Age, Race and ethnic group

| Group                              | Baseline | Visit                  | N   | Endpoint                     | GMTR/GMCR  |
|------------------------------------|----------|------------------------|-----|------------------------------|------------|
| Age, Race and ethnic group         |          |                        |     |                              |            |
| Age $\geq$ 65 Communities of Color | Negative | D29 fold-rise over D1  | 253 | Binding Antibody to RBD      | 435.92     |
|                                    |          |                        |     | Binding Antibody to Spike    | 601.64     |
|                                    |          |                        |     | PsV Neutralization 50% Titer | 20.72      |
|                                    |          |                        |     | PsV Neutralization 80% Titer | 30.50      |
|                                    |          | D57 fold-rise over D1  | 253 | Binding Antibody to RBD      | 3046.19    |
|                                    |          |                        |     | Binding Antibody to Spike    | 4761.87    |
|                                    |          |                        |     | PsV Neutralization 50% Titer | 93.53      |
|                                    |          |                        |     | PsV Neutralization 80% Titer | 106.44     |
|                                    |          | D57 fold-rise over D29 | 253 | Binding Antibody to RBD      | 21.78      |
|                                    |          |                        |     | Binding Antibody to Spike    | 23.93      |
|                                    |          |                        |     | PsV Neutralization 50% Titer | 11.63      |
|                                    |          |                        |     | PsV Neutralization 80% Titer | 9.42       |
| Age $\geq$ 65 White Non-Hispanic   | Positive | D29 fold-rise over D1  | 148 | Binding Antibody to RBD      | 18550.34   |
|                                    |          |                        |     | Binding Antibody to Spike    | 27128.41   |
|                                    |          |                        |     | PsV Neutralization 50% Titer | 65.48      |
|                                    |          |                        |     | PsV Neutralization 80% Titer | 174.38     |
|                                    |          | D57 fold-rise over D1  | 148 | Binding Antibody to RBD      | 910274.90  |
|                                    |          |                        |     | Binding Antibody to Spike    | 1540863.96 |
|                                    |          |                        |     | PsV Neutralization 50% Titer | 1132.24    |
|                                    |          |                        |     | PsV Neutralization 80% Titer | 2732.08    |
|                                    |          | D57 fold-rise over D29 | 148 | Binding Antibody to RBD      | 47.81      |
|                                    |          |                        |     | Binding Antibody to Spike    | 53.58      |
|                                    |          |                        |     | PsV Neutralization 50% Titer | 21.76      |
|                                    |          |                        |     | PsV Neutralization 80% Titer | 20.27      |
|                                    | Negative | D29 fold-rise over D1  | 227 | Binding Antibody to RBD      | 587.13     |
|                                    |          |                        |     | Binding Antibody to Spike    | 726.40     |
|                                    |          |                        |     | PsV Neutralization 50% Titer | 23.26      |
|                                    |          |                        |     | PsV Neutralization 80% Titer | 35.78      |
|                                    |          | D57 fold-rise over D1  | 227 | Binding Antibody to RBD      | 4187.86    |
|                                    |          |                        |     | Binding Antibody to Spike    | 5792.05    |
|                                    |          |                        |     | PsV Neutralization 50% Titer | 98.69      |
|                                    |          |                        |     | PsV Neutralization 80% Titer | 138.51     |
|                                    |          | D57 fold-rise over D29 | 227 | Binding Antibody to RBD      | 21.61      |
|                                    |          |                        |     | Binding Antibody to Spike    | 23.88      |
|                                    |          |                        |     | PsV Neutralization 50% Titer | 10.29      |
|                                    |          |                        |     | PsV Neutralization 80% Titer | 9.94       |
|                                    | Positive | D29 fold-rise over D1  | 117 | Binding Antibody to RBD      | 13504.88   |
|                                    |          |                        |     | Binding Antibody to Spike    | 26368.53   |
|                                    |          |                        |     | PsV Neutralization 50% Titer | 76.43      |

Table 2.31: Table 4j. Geometric mean titer ratios (GMTRs) or geometric mean concentrations (GMCRs) between post-vaccinations/pre-vaccination by Age, Race and ethnic group (continued)

| Group                              | Baseline | Visit                  | N   | Endpoint   | GM  |
|------------------------------------|----------|------------------------|-----|--|---|
|                                    |          | D57 fold-rise over D1  | 117 | PsV Neutralization 80% Titer<br>Binding Antibody to RBD<br>Binding Antibody to Spike<br>PsV Neutralization 50% Titer<br>PsV Neutralization 80% Titer | 168.0<br>807.0<br>142.0<br>110.0<br>330.0 |
|                                    |          | D57 fold-rise over D29 | 117 | Binding Antibody to RBD<br>Binding Antibody to Spike<br>PsV Neutralization 50% Titer<br>PsV Neutralization 80% Titer                                 | 64.0<br>52.0<br>19.0<br>24.0              |
| Age $\geq$ 65 Communities of Color | Negative | D29 fold-rise over D1  | 282 | PsV Neutralization 80% Titer<br>Binding Antibody to RBD  | 839.0<br>112.0                            |
|                                    |          | D57 fold-rise over D1  | 282 | Binding Antibody to Spike<br>PsV Neutralization 50% Titer<br>PsV Neutralization 80% Titer  | 34.0<br>45.0<br>619.0                     |
|                                    |          | D57 fold-rise over D29 | 282 | Binding Antibody to RBD<br>Binding Antibody to Spike<br>PsV Neutralization 50% Titer<br>PsV Neutralization 80% Titer                                 | 866.0<br>170.0<br>166.0<br>23.0           |
|                                    | Positive | D29 fold-rise over D1  | 113 | Binding Antibody to RBD<br>Binding Antibody to Spike<br>PsV Neutralization 50% Titer<br>PsV Neutralization 80% Titer                                 | 797.0<br>101.0<br>357.0<br>616.0          |
|                                    |          | D57 fold-rise over D1  | 113 | Binding Antibody to RBD<br>Binding Antibody to Spike<br>PsV Neutralization 50% Titer<br>PsV Neutralization 80% Titer                                 | 519.0<br>818.0<br>104.0<br>120.0          |
|                                    |          | D57 fold-rise over D29 | 113 | Binding Antibody to RBD<br>Binding Antibody to Spike<br>PsV Neutralization 50% Titer<br>PsV Neutralization 80% Titer                                 | 65.0<br>78.0<br>35.0<br>25.0              |
| Age $\geq$ 65 White Non-Hispanic   | Negative | D29 fold-rise over D1  | 229 | Binding Antibody to RBD  | 107.0                                     |
|                                    |          | D57 fold-rise over D1  | 229 | Binding Antibody to Spike<br>PsV Neutralization 50% Titer<br>PsV Neutralization 80% Titer  | 146.0<br>41.0<br>52.0                     |
|                                    |          | D57 fold-rise over D29 | 229 | Binding Antibody to RBD<br>Binding Antibody to Spike<br>PsV Neutralization 50% Titer   | 855.0<br>128.0<br>186.0                   |

Table 2.31: Table 4j. Geometric mean titer ratios (GMTRs) or geometric mean concentration ratios (GMCRs) between post-vaccinations/pre-vaccination by Age, Race and ethnic group (continued)

| Group    | Baseline | Visit                  | N   | Endpoint                     | GMTR/GMCR  |
|----------|----------|------------------------|-----|------------------------------|------------|
|          |          | D57 fold-rise over D29 | 229 | PsV Neutralization 80% Titer | 233.58     |
|          |          |                        |     | Binding Antibody to RBD      | 25.28      |
|          |          |                        |     | Binding Antibody to Spike    | 26.88      |
|          |          |                        |     | PsV Neutralization 50% Titer | 10.58      |
|          |          |                        |     | PsV Neutralization 80% Titer | 10.46      |
| Positive |          | D29 fold-rise over D1  | 107 | Binding Antibody to RBD      | 54235.32   |
|          |          |                        |     | Binding Antibody to Spike    | 123185.22  |
|          |          |                        |     | PsV Neutralization 50% Titer | 223.15     |
|          |          |                        |     | PsV Neutralization 80% Titer | 386.42     |
|          |          | D57 fold-rise over D1  | 107 | Binding Antibody to RBD      | 3665429.27 |
|          |          |                        |     | Binding Antibody to Spike    | 8778206.78 |
|          |          |                        |     | PsV Neutralization 50% Titer | 5720.88    |
|          |          |                        |     | PsV Neutralization 80% Titer | 6641.17    |
|          |          | D57 fold-rise over D29 | 107 | Binding Antibody to RBD      | 70.34      |
|          |          |                        |     | Binding Antibody to Spike    | 71.33      |
|          |          |                        |     | PsV Neutralization 50% Titer | 31.34      |
|          |          |                        |     | PsV Neutralization 80% Titer | 21.00      |

All calculations were weighted by the inverse probability sampling (IPS), defined based on the subcohort sampling strata.

2.0.5 Table 5. Ratios of GMTs/GMCs between the vaccine arm vs. placebo arm, by baseline status

Table 2.32: Table 5. Ratios of GMTs/GMCs between the vaccine arm vs. placebo arm, by baseline status

| Baseline         | Visit  | N    | Endpoint                     | Ratios of GMT/GMC | 95% CI       |
|------------------|--------|------|------------------------------|-------------------|--------------|
| All participants |        |      |                              |                   |              |
| Negative         | Day 29 | 1062 | Binding Antibody to RBD      | 0.00              | (0.00, 0.00) |
|                  |        |      | Binding Antibody to Spike    | 0.00              | (0.00, 0.00) |
|                  |        |      | PsV Neutralization 50% Titer | 0.20              | (0.17, 0.23) |
|                  |        |      | PsV Neutralization 80% Titer | 0.10              | (0.08, 0.11) |
|                  | Day 57 | 1062 | Binding Antibody to RBD      | 0.00              | (0.00, 0.00) |
|                  |        |      | Binding Antibody to Spike    | 0.00              | (0.00, 0.00) |
|                  |        |      | PsV Neutralization 50% Titer | 0.01              | (0.01, 0.02) |
|                  |        |      | PsV Neutralization 80% Titer | 0.01              | (0.01, 0.01) |
| Positive         | Day 29 | 543  | Binding Antibody to RBD      | 0.30              | (0.23, 0.40) |
|                  |        |      | Binding Antibody to Spike    | 0.23              | (0.18, 0.28) |
|                  |        |      | PsV Neutralization 50% Titer | 0.38              | (0.29, 0.49) |
|                  |        |      | PsV Neutralization 80% Titer | 0.46              | (0.35, 0.61) |
|                  | Day 57 | 543  | Binding Antibody to RBD      | 0.17              | (0.13, 0.22) |
|                  |        |      | Binding Antibody to Spike    | 0.12              | (0.10, 0.15) |
|                  |        |      | PsV Neutralization 50% Titer | 0.12              | (0.08, 0.17) |
|                  |        |      | PsV Neutralization 80% Titer | 0.24              | (0.17, 0.35) |

All calculations were weighted by the inverse probability sampling (IPS), defined based on the sub-cohort sampling strata.

2.0.6 Table 6. Ratios of GMTs/GMCs between baseline positive participants vs. negative participants, among the vaccinees

Table 2.33: Table 6. Ratios of GMTs/GMCs between baseline positive participants vs. negative participants, among the vaccine recipients

| Visit            | N    | Endpoint                  | Ratios of GMT/GMC | 95% CI       |
|------------------|------|---------------------------|-------------------|--------------|
| All participants |      |                           |                   |              |
| Day 29           | 1180 | Binding Antibody to RBD   | 1.66              | (1.21, 2.28) |
|                  |      | Binding Antibody to Spike | 1.76              | (1.35, 2.31) |

Table 2.33: Table 6. Ratios of GMTs/GMCs between baseline positive participants vs. negative participants, among the vaccine recipients (continued)

| Visit  | N    | Endpoint                     | Ratios of GMT/GMC | 95% CI       |
|--------|------|------------------------------|-------------------|--------------|
| Day 57 | 1180 | PsV Neutralization 50% Titer | 1.47              | (1.09, 1.98) |
|        |      | PsV Neutralization 80% Titer | 1.50              | (1.08, 2.09) |
|        |      | Binding Antibody to RBD      | 2.55              | (1.83, 3.54) |
|        |      | Binding Antibody to Spike    | 2.50              | (1.90, 3.30) |
|        |      | PsV Neutralization 50% Titer | 2.61              | (1.71, 4.00) |
|        |      | PsV Neutralization 80% Titer | 2.67              | (1.78, 4.00) |

All calculations were weighted by the inverse probability sampling (IPS), defined based on the subcohort sampling strata.

### 2.0.7 Table 7. Ratios of GMTs/GMCs between demographic subgroups among the vaccine recipients

Table 2.34: Table 7. Ratios of GMTs/GMCs between demographic subgroups among the vaccine recipients

| Baseline   | Visit  | Endpoint                     | N   | Ratios of GMT/GMC | 95% CI       |
|------------|--------|------------------------------|-----|-------------------|--------------|
| <b>Age</b> |        |                              |     |                   |              |
| Negative   | Day 29 | Binding Antibody to RBD      | 847 | 0.78              | (0.63, 0.97) |
|            |        | Binding Antibody to Spike    |     | 0.85              | (0.70, 1.03) |
|            |        | PsV Neutralization 50% Titer |     | 0.94              | (0.76, 1.16) |
|            |        | PsV Neutralization 80% Titer |     | 1.01              | (0.80, 1.28) |
|            |        | Binding Antibody to RBD      | 907 | 4.09              | (3.20, 5.23) |
|            |        |                              |     | 1.18              | (0.95, 1.47) |
|            |        |                              |     | 0.89              | (0.70, 1.13) |
|            |        |                              |     | 1.09              | (0.76, 1.56) |
|            |        | Binding Antibody to Spike    |     | 3.80              | (3.09, 4.67) |
|            |        |                              |     | 0.93              | (0.78, 1.13) |
|            |        |                              |     | 0.90              | (0.73, 1.11) |
|            |        |                              |     | 1.02              | (0.75, 1.39) |
|            |        | PsV Neutralization 50% Titer |     | 2.91              | (2.30, 3.69) |
|            |        |                              |     | 1.08              | (0.88, 1.32) |
|            |        |                              |     | 0.92              | (0.74, 1.16) |
|            |        |                              |     | 1.15              | (0.82, 1.62) |
| <b>Sex</b> |        |                              |     |                   |              |

Table 2.34: Table 7. Ratios of GMTs/GMCs between demographic subgroups among the vaccine recipients (continued)

| Baseline | Visit  | Endpoint                     | N   | Ratios of GMT/GMC | 95% CI       |
|----------|--------|------------------------------|-----|-------------------|--------------|
| Day 57   | Day 57 | PsV Neutralization 80% Titer |     | 2.56              | (1.96, 3.34) |
|          |        |                              |     | 1.09              | (0.87, 1.37) |
|          |        |                              |     | 1.03              | (0.80, 1.33) |
|          |        |                              |     | 1.12              | (0.77, 1.63) |
|          |        | Binding Antibody to RBD      | 847 | 0.81              | (0.64, 1.02) |
|          | Day 29 | Binding Antibody to Spike    |     | 0.86              | (0.71, 1.05) |
|          |        | PsV Neutralization 50% Titer |     | 1.13              | (0.84, 1.52) |
|          |        | PsV Neutralization 80% Titer |     | 0.80              | (0.61, 1.06) |
|          |        | Binding Antibody to RBD      | 907 | 4.00              | (3.09, 5.18) |
|          |        |                              |     | 0.90              | (0.72, 1.13) |
| Positive | Day 29 |                              |     | 0.87              | (0.68, 1.12) |
|          |        |                              |     | 1.10              | (0.76, 1.61) |
|          |        | Binding Antibody to Spike    |     | 3.37              | (2.71, 4.20) |
|          |        |                              |     | 0.98              | (0.81, 1.19) |
|          |        |                              |     | 0.98              | (0.79, 1.21) |
|          | Day 29 | PsV Neutralization 50% Titer |     | 1.01              | (0.74, 1.39) |
|          |        |                              |     | 3.89              | (2.76, 5.47) |
|          |        |                              |     | 1.26              | (0.95, 1.69) |
|          |        |                              |     | 0.96              | (0.69, 1.32) |
|          |        | PsV Neutralization 80% Titer |     | 0.98              | (0.60, 1.59) |
| Positive | Day 29 | Binding Antibody to RBD      | 241 | 2.84              | (2.05, 3.94) |
|          |        | Binding Antibody to Spike    |     | 0.97              | (0.74, 1.28) |
|          |        | PsV Neutralization 50% Titer |     | 0.97              | (0.71, 1.31) |
|          |        | PsV Neutralization 80% Titer |     | 1.78              | (1.13, 2.80) |
|          |        | Binding Antibody to RBD      | 273 | 1.00              | (0.65, 1.53) |
|          | Day 29 | Binding Antibody to Spike    |     | 1.05              | (0.75, 1.46) |
|          |        |                              |     | 1.10              | (0.71, 1.71) |
|          |        |                              |     | 1.21              | (0.76, 1.91) |
|          |        |                              |     | 3.62              | (2.25, 5.80) |
|          |        |                              |     | 0.99              | (0.66, 1.47) |

Table 2.34: Table 7. Ratios of GMTs/GMCs between demographic subgroups among the vaccine recipients (continued)

| Baseline                  | Visit                        | Endpoint | N | Ratios of GMT/GMC | 95% CI        |
|---------------------------|------------------------------|----------|---|-------------------|---------------|
| Day 57                    | Binding Antibody to RBD      | 241      |   | 0.88              | (0.54, 1.43)  |
|                           |                              |          |   | 1.08              | (0.61, 1.94)  |
|                           |                              |          |   | 0.97              | (0.64, 1.48)  |
|                           |                              |          |   | 1.14              | (0.84, 1.56)  |
|                           |                              |          |   | 1.24              | (0.71, 2.18)  |
|                           | PsV Neutralization 50% Titer | 273      |   | 0.67              | (0.38, 1.20)  |
|                           |                              |          |   | 3.31              | (2.08, 5.26)  |
|                           |                              |          |   | 0.95              | (0.64, 1.40)  |
|                           |                              |          |   | 0.88              | (0.56, 1.37)  |
|                           |                              |          |   | 0.56              | (0.33, 0.94)  |
| Binding Antibody to Spike | PsV Neutralization 50% Titer | 273      |   | 2.82              | (2.02, 3.93)  |
|                           |                              |          |   | 1.05              | (0.79, 1.40)  |
|                           |                              |          |   | 1.03              | (0.74, 1.42)  |
|                           |                              |          |   | 0.80              | (0.54, 1.17)  |
|                           |                              |          |   | 5.60              | (2.91, 10.76) |
|                           | PsV Neutralization 80% Titer | 273      |   | 1.00              | (0.58, 1.74)  |
|                           |                              |          |   | 0.97              | (0.52, 1.83)  |
|                           |                              |          |   | 0.83              | (0.39, 1.77)  |
|                           |                              |          |   | 4.09              | (2.08, 8.03)  |
|                           |                              |          |   | 0.89              | (0.51, 1.56)  |
| All participants          | Binding Antibody to RBD      | 273      |   | 0.80              | (0.42, 1.51)  |
|                           |                              |          |   | 1.12              | (0.52, 2.41)  |

All calculations were weighted by the inverse probability sampling (IPS), defined based on the subcohort sampling strata.

#### 2.0.8 Table 8. Differences of responder rates between the vaccine arm and the placebo arm

Table 2.35: Table 8a. Differences of responder rates between the vaccine arm and the placebo by All participants

| Group            | Baseline | Visit  | N    | Endpoint                  | 2-Fold Rise      | 4-Fold           |
|------------------|----------|--------|------|---------------------------|------------------|------------------|
| All participants | Negative | Day 29 | 1062 | Binding Antibody to RBD   | 100.0%           | 100.0%           |
|                  |          |        |      | Binding Antibody to Spike | (100.0%, 100.0%) | (100.0%, 100.0%) |

Table 2.35: Table 8a. Differences of responder rates between the vaccine arm and the placebo arm by All participants (continued)

| Group    | Baseline | Visit | N | Endpoint                     | 2-Fold Rise      |
|----------|----------|-------|---|------------------------------|------------------|
|          |          |       |   |                              | (100.0%, 100.0%) |
|          |          |       |   | PsV Neutralization 50% Titer | 65.8%            |
|          |          |       |   |                              | (61.7%, 69.9%)   |
|          |          |       |   | PsV Neutralization 80% Titer | 79.8%            |
|          |          |       |   |                              | (76.4%, 83.3%)   |
|          | Day 57   | 1062  |   | Binding Antibody to RBD      | 100.0%           |
|          |          |       |   |                              | (100.0%, 100.0%) |
|          |          |       |   | Binding Antibody to Spike    | 100.0%           |
|          |          |       |   |                              | (100.0%, 100.0%) |
|          |          |       |   | PsV Neutralization 50% Titer | 95.4%            |
|          |          |       |   |                              | (93.6%, 97.2%)   |
|          |          |       |   | PsV Neutralization 80% Titer | 97.3%            |
|          |          |       |   |                              | (95.9%, 98.7%)   |
| Positive | Day 29   | 543   |   | Binding Antibody to RBD      | -0.0%            |
|          |          |       |   |                              | (-0.0%, -0.0%)   |
|          |          |       |   | Binding Antibody to Spike    | -0.0%            |
|          |          |       |   |                              | (-0.0%, -0.0%)   |
|          |          |       |   | PsV Neutralization 50% Titer | 24.6%            |
|          |          |       |   |                              | (16.8%, 32.4%)   |
|          |          |       |   | PsV Neutralization 80% Titer | 7.7%             |
|          |          |       |   |                              | (1.3%, 14.1%)    |
|          | Day 57   | 543   |   | Binding Antibody to RBD      | -0.0%            |
|          |          |       |   |                              | (-0.0%, -0.0%)   |
|          |          |       |   | Binding Antibody to Spike    | -0.0%            |
|          |          |       |   |                              | (-0.0%, -0.0%)   |
|          |          |       |   | PsV Neutralization 50% Titer | 12.5%            |
|          |          |       |   |                              | (7.6%, 17.4%)    |
|          |          |       |   | PsV Neutralization 80% Titer | 1.6%             |
|          |          |       |   |                              | (-0.7%, 3.9%)    |

All calculations were weighted by the inverse probability sampling (IPS), defined based on the subcohort sampled.

Table 2.36: Table 8b. Differences of responder rates between the vaccine arm and the placebo by Age

| Group         | Baseline | Visit  | N   | Endpoint                     | 2-Fold Rise      | 4-Fold           |
|---------------|----------|--------|-----|------------------------------|------------------|------------------|
| Age $\leq$ 65 | Negative | Day 29 | 513 | Binding Antibody to RBD      | 100.0%           | 100.0%           |
|               |          |        |     |                              | (100.0%, 100.0%) | (100.0%, 100.0%) |
|               |          | Day 57 | 513 | Binding Antibody to Spike    | 100.0%           | 100.0%           |
|               |          |        |     |                              | (100.0%, 100.0%) | (100.0%, 100.0%) |
|               |          |        |     | PsV Neutralization 50% Titer | 61.1%            | 46.1%            |
|               | Positive | Day 29 | 294 |                              | (55.0%, 67.2%)   | (39.9%, 46.1%)   |
|               |          |        |     | Binding Antibody to RBD      | 76.7%            | 65.3%            |
|               |          | Day 57 | 294 |                              | (71.4%, 81.9%)   | (59.4%, 65.3%)   |
|               |          |        |     | Binding Antibody to Spike    | 100.0%           | 100.0%           |
|               |          |        |     |                              | (100.0%, 100.0%) | (100.0%, 100.0%) |
| Age $>$ 65    | Negative | Day 29 | 549 | PsV Neutralization 50% Titer | 95.1%            | 88.4%            |
|               |          |        |     |                              | (92.4%, 97.8%)   | (84.4%, 95.1%)   |
|               |          | Day 57 | 294 | PsV Neutralization 80% Titer | 96.9%            | 93.5%            |
|               |          |        |     |                              | (94.7%, 99.1%)   | (90.5%, 96.9%)   |
|               |          |        |     | Binding Antibody to RBD      | -0.0%            | 0.3%             |
|               | Positive | Day 29 | 294 |                              | (-0.0%, -0.0%)   | (-0.6%, -0.0%)   |
|               |          |        |     | Binding Antibody to Spike    | -0.0%            | -0.0%            |
|               |          | Day 57 | 294 |                              | (-0.0%, -0.0%)   | (-0.0%, -0.0%)   |
|               |          |        |     | PsV Neutralization 50% Titer | 26.5%            | 20.0%            |
|               |          |        |     |                              | (15.7%, 37.4%)   | (9.0%, 26.5%)    |
| Age $\geq$ 65 | Negative | Day 29 | 549 | PsV Neutralization 80% Titer | 7.0%             | 13.0%            |
|               |          |        |     |                              | (-2.1%, 16.1%)   | (2.1%, 7.0%)     |
|               |          | Day 57 | 294 | Binding Antibody to RBD      | -0.0%            | -0.0%            |
|               |          |        |     |                              | (-0.0%, -0.0%)   | (-0.0%, -0.0%)   |
|               |          |        |     | Binding Antibody to Spike    | -0.0%            | -0.0%            |
|               | Positive | Day 29 | 294 |                              | (-0.0%, -0.0%)   | (-0.0%, -0.0%)   |
|               |          |        |     | PsV Neutralization 50% Titer | 15.0%            | 20.6%            |
|               |          | Day 57 | 294 |                              | (7.9%, 22.2%)    | (12.5%, 15.0%)   |
|               |          |        |     | PsV Neutralization 80% Titer | 1.3%             | 4.8%             |
|               |          |        |     |                              | (-1.9%, 4.5%)    | (-0.1%, 1.3%)    |

Table 2.36: Table 8b. Differences of responder rates between the vaccine arm and the by Age (continued)

| Group    | Baseline | Visit | N | Endpoint                     | 2-Fold Rise                |
|----------|----------|-------|---|------------------------------|----------------------------|
|          |          |       |   | PsV Neutralization 80% Titer | 91.6%<br>(88.3%, 94.9%)    |
|          | Day 57   | 549   |   | Binding Antibody to RBD      | 100.0%<br>(100.0%, 100.0%) |
|          |          |       |   | Binding Antibody to Spike    | 100.0%<br>(100.0%, 100.0%) |
|          |          |       |   | PsV Neutralization 50% Titer | 96.7%<br>(94.6%, 98.9%)    |
|          |          |       |   | PsV Neutralization 80% Titer | 98.9%<br>(97.7%, 100.2%)   |
| Positive | Day 29   | 249   |   | Binding Antibody to RBD      | 0.0%<br>(-0.0%, 0.0%)      |
|          |          |       |   | Binding Antibody to Spike    | 0.0%<br>(-0.0%, 0.0%)      |
|          |          |       |   | PsV Neutralization 50% Titer | 16.3%<br>(7.2%, 25.4%)     |
|          |          |       |   | PsV Neutralization 80% Titer | 10.6%<br>(3.3%, 17.9%)     |
|          | Day 57   | 249   |   | Binding Antibody to RBD      | 0.0%<br>(-0.0%, 0.0%)      |
|          |          |       |   | Binding Antibody to Spike    | 0.0%<br>(-0.0%, 0.0%)      |
|          |          |       |   | PsV Neutralization 50% Titer | 2.1%<br>(-1.8%, 6.1%)      |
|          |          |       |   | PsV Neutralization 80% Titer | 2.9%<br>(-0.0%, 5.8%)      |

All calculations were weighted by the inverse probability sampling (IPS), defined based on the subcohort sample.

Table 2.37: Table 8c. Differences of responder rates between the vaccine arm and the placebo by Risk for Severe Covid-19

| Group       | Baseline    | Visit  | N   | Endpoint                     | 2-Fold Rise      | 4-Fold           |
|-------------|-------------|--------|-----|------------------------------|------------------|------------------|
| At-risk     | Negative    | Day 29 | 541 | Binding Antibody to RBD      | 100.0%           | 100.0%           |
|             |             |        |     |                              | (100.0%, 100.0%) | (100.0%, 100.0%) |
|             |             | Day 57 | 541 | Binding Antibody to Spike    | 100.0%           | 100.0%           |
|             |             |        |     |                              | (100.0%, 100.0%) | (100.0%, 100.0%) |
|             |             |        |     | PsV Neutralization 50% Titer | 65.2%            | 51.1%            |
|             | Positive    | Day 29 | 246 |                              | (59.4%, 71.1%)   | (45.0%, 67.1%)   |
|             |             |        |     | PsV Neutralization 80% Titer | 78.7%            | 67.1%            |
|             |             | Day 57 | 246 | Binding Antibody to RBD      | (73.7%, 83.7%)   | (61.4%, 89.6%)   |
|             |             |        |     |                              | 100.0%           | 100.0%           |
|             |             |        |     | Binding Antibody to Spike    | (100.0%, 100.0%) | (100.0%, 100.0%) |
| Not at-risk | Negative    | Day 29 | 521 | PsV Neutralization 50% Titer | 93.7%            | 89.6%            |
|             |             |        |     |                              | (90.7%, 96.7%)   | (85.9%, 94.4%)   |
|             |             | Day 57 | 246 | PsV Neutralization 80% Titer | 97.4%            | 94.4%            |
|             |             |        |     |                              | (95.5%, 99.3%)   | (91.6%, 99.3%)   |
|             |             |        |     | Binding Antibody to RBD      | 0.0%             | 0.9%             |
|             | Positive    | Day 29 | 246 |                              | (0.0%, 0.0%)     | (-0.7%, 0.9%)    |
|             |             |        |     | Binding Antibody to Spike    | 0.0%             | 0.0%             |
|             |             | Day 57 | 246 |                              | (0.0%, 0.0%)     | (0.0%, 0.0%)     |
|             |             |        |     | PsV Neutralization 50% Titer | 21.5%            | 21.6%            |
|             |             |        |     |                              | (10.2%, 32.8%)   | (9.3%, 21.6%)    |
| Not at-risk | Positive    | Day 29 | 246 | PsV Neutralization 80% Titer | 14.3%            | 18.3%            |
|             |             |        |     |                              | (4.0%, 24.5%)    | (7.1%, 18.3%)    |
|             |             | Day 57 | 246 | Binding Antibody to RBD      | 0.0%             | 0.0%             |
|             |             |        |     |                              | (0.0%, 0.0%)     | (0.0%, 0.0%)     |
|             |             |        |     | Binding Antibody to Spike    | 0.0%             | 0.0%             |
|             | Not at-risk | Day 29 | 521 |                              | (0.0%, 0.0%)     | (0.0%, 0.0%)     |
|             |             |        |     | PsV Neutralization 50% Titer | 8.1%             | 10.5%            |
|             |             | Day 57 | 521 |                              | (1.4%, 14.7%)    | (2.3%, 10.5%)    |
|             |             |        |     | PsV Neutralization 80% Titer | 3.0%             | 4.6%             |
|             |             |        |     |                              | (-0.8%, 6.8%)    | (0.3%, 4.6%)     |

Table 2.37: Table 8c. Differences of responder rates between the vaccine arm and the by Risk for Severe Covid-19 (continued)

| Group    | Baseline | Visit | N | Endpoint                     | 2-Fold Rise                |
|----------|----------|-------|---|------------------------------|----------------------------|
|          |          |       |   | PsV Neutralization 80% Titer | 80.3%<br>(75.4%, 85.2%)    |
|          | Day 57   | 521   |   | Binding Antibody to RBD      | 100.0%<br>(100.0%, 100.0%) |
|          |          |       |   | Binding Antibody to Spike    | 100.0%<br>(100.0%, 100.0%) |
|          |          |       |   | PsV Neutralization 50% Titer | 96.1%                      |
|          |          |       |   |                              | (93.7%, 98.5%)             |
|          |          |       |   | PsV Neutralization 80% Titer | 97.3%<br>(95.3%, 99.3%)    |
| Positive | Day 29   | 297   |   | Binding Antibody to RBD      | -0.0%<br>(-0.0%, -0.0%)    |
|          |          |       |   | Binding Antibody to Spike    | -0.0%<br>(-0.0%, -0.0%)    |
|          |          |       |   | PsV Neutralization 50% Titer | 25.4%<br>(14.7%, 36.0%)    |
|          |          |       |   | PsV Neutralization 80% Titer | 5.8%                       |
|          |          |       |   |                              | (-2.6%, 14.3%)             |
|          | Day 57   | 297   |   | Binding Antibody to RBD      | -0.0%<br>(-0.0%, -0.0%)    |
|          |          |       |   | Binding Antibody to Spike    | -0.0%<br>(-0.0%, -0.0%)    |
|          |          |       |   | PsV Neutralization 50% Titer | 13.8%<br>(7.1%, 20.6%)     |
|          |          |       |   | PsV Neutralization 80% Titer | 1.2%<br>(-1.8%, 4.2%)      |

All calculations were weighted by the inverse probability sampling (IPS), defined based on the subcohort sample.

Table 2.38: Table 8d. Differences of responder rates between the vaccine arm and the placebo by Age, Risk for Severe Covid-19

| Group                     | Baseline    | Visit  | N   | Endpoint                     | 2-Fold Rise      | 4-Fold   |
|---------------------------|-------------|--------|-----|------------------------------|------------------|----------|
| Age $\geq$ 65 At-risk     | Negative    | Day 29 | 257 | Binding Antibody to RBD      | 100.0%           | 100.0%   |
|                           |             |        |     |                              | (100.0%, 100.0%) | (100.0%) |
|                           |             | Day 57 | 257 | Binding Antibody to Spike    | 100.0%           | 100.0%   |
|                           |             |        |     |                              | (100.0%, 100.0%) | (100.0%) |
|                           |             |        |     | PsV Neutralization 50% Titer | 55.8%            | 40.2%    |
|                           | Positive    | Day 29 | 148 |                              | (47.0%, 64.6%)   | (31.5%)  |
|                           |             |        |     | PsV Neutralization 80% Titer | 72.5%            | 60.2%    |
|                           |             | Day 57 | 148 | Binding Antibody to RBD      | (64.6%, 80.4%)   | (51.5%)  |
|                           |             |        |     |                              | 100.0%           | 100.0%   |
|                           |             |        |     | Binding Antibody to Spike    | (100.0%, 100.0%) | (100.0%) |
| Age $\geq$ 65 Not at-risk | Negative    | Day 29 | 256 | PsV Neutralization 50% Titer | 92.3%            | 86.7%    |
|                           |             |        |     |                              | (87.6%, 97.0%)   | (80.7%)  |
|                           |             | Day 57 | 148 | PsV Neutralization 80% Titer | 95.7%            | 91.9%    |
|                           |             |        |     |                              | (92.1%, 99.3%)   | (87.1%)  |
|                           |             |        |     | Binding Antibody to RBD      | 0.0%             | 1.3%     |
|                           | Positive    | Day 29 | 148 |                              | (0.0%, 0.0%)     | (-1.2%)  |
|                           |             |        |     | Binding Antibody to Spike    | 0.0%             | 0.0%     |
|                           |             | Day 57 | 148 |                              | (0.0%, 0.0%)     | (0.0%,)  |
|                           |             |        |     | PsV Neutralization 50% Titer | 21.9%            | 18.8%    |
|                           |             |        |     |                              | (6.6%, 37.3%)    | (2.9%,)  |
|                           | Not at-risk | Day 29 | 256 | PsV Neutralization 80% Titer | 10.1%            | 13.9%    |
|                           |             |        |     |                              | (-3.9%, 24.2%)   | (-1.5%)  |
|                           |             | Day 57 | 148 | Binding Antibody to RBD      | 0.0%             | 0.0%     |
|                           |             |        |     |                              | (0.0%, 0.0%)     | (0.0%,)  |
|                           |             |        |     | Binding Antibody to Spike    | 0.0%             | 0.0%     |
| Age < 65 At-risk          | Negative    | Day 29 | 256 |                              | (0.0%, 0.0%)     | (0.0%,)  |
|                           |             |        |     | PsV Neutralization 50% Titer | 10.6%            | 11.8%    |
|                           |             | Day 57 | 148 |                              | (1.4%, 19.7%)    | (0.8%,)  |
|                           |             |        |     | PsV Neutralization 80% Titer | 1.3%             | 2.6%     |
|                           |             |        |     |                              | (-3.2%, 5.8%)    | (-2.5%)  |
|                           | Positive    | Day 29 | 148 | Binding Antibody to RBD      | 100.0%           | 100.0%   |
|                           |             |        |     |                              | (100.0%, 100.0%) | (100.0%) |
|                           |             | Day 57 | 148 | Binding Antibody to Spike    | 100.0%           | 100.0%   |
|                           |             |        |     |                              | (100.0%, 100.0%) | (100.0%) |
|                           |             |        |     | PsV Neutralization 50% Titer | 62.5%            | 47.7%    |
|                           | Not at-risk | Day 29 | 256 |                              | (53.9%, 71.1%)   | (38.8%)  |
|                           |             |        |     | PsV Neutralization 80% Titer | 1.3%             | 2.6%     |
|                           |             | Day 57 | 148 |                              | (-3.2%, 5.8%)    | (-2.5%)  |
|                           |             |        |     | Binding Antibody to RBD      | 100.0%           | 100.0%   |
|                           |             |        |     |                              | (100.0%, 100.0%) | (100.0%) |
|                           |             | Day 57 | 148 | Binding Antibody to Spike    | 100.0%           | 100.0%   |
|                           |             |        |     |                              | (100.0%, 100.0%) | (100.0%) |
|                           |             |        |     | PsV Neutralization 50% Titer | 62.5%            | 47.7%    |
|                           |             |        |     |                              | (53.9%, 71.1%)   | (38.8%)  |

Table 2.38: Table 8d. Differences of responder rates between the vaccine arm and the by Age, Risk for Severe Covid-19 (continued)

| Group                 | Baseline | Visit  | N   | Endpoint                     | 2-Fold Rise                |
|-----------------------|----------|--------|-----|------------------------------|----------------------------|
|                       |          |        |     | PsV Neutralization 80% Titer | 77.8%<br>(70.4%, 85.1%)    |
|                       | Day 57   | 256    |     | Binding Antibody to RBD      | 100.0%<br>(100.0%, 100.0%) |
|                       |          |        |     | Binding Antibody to Spike    | 100.0%<br>(100.0%, 100.0%) |
|                       |          |        |     | PsV Neutralization 50% Titer | 95.8%<br>(92.3%, 99.4%)    |
|                       |          |        |     | PsV Neutralization 80% Titer | 97.2%<br>(94.3%, 100.1%)   |
| Positive              | Day 29   | 146    |     | Binding Antibody to RBD      | 0.0%<br>(-0.0%, 0.0%)      |
|                       |          |        |     | Binding Antibody to Spike    | 0.0%<br>(-0.0%, 0.0%)      |
|                       |          |        |     | PsV Neutralization 50% Titer | 27.6%<br>(12.2%, 43.1%)    |
|                       |          |        |     | PsV Neutralization 80% Titer | 6.3%<br>(-6.3%, 19.0%)     |
|                       | Day 57   | 146    |     | Binding Antibody to RBD      | 0.0%<br>(-0.0%, 0.0%)      |
|                       |          |        |     | Binding Antibody to Spike    | 0.0%<br>(-0.0%, 0.0%)      |
|                       |          |        |     | PsV Neutralization 50% Titer | 16.1%<br>(5.8%, 26.5%)     |
|                       |          |        |     | PsV Neutralization 80% Titer | 1.3%<br>(-3.3%, 5.9%)      |
| Age $\geq$ 65 At-risk | Negative | Day 29 | 284 | Binding Antibody to RBD      | 100.0%<br>(100.0%, 100.0%) |
|                       |          |        |     | Binding Antibody to Spike    | 100.0%<br>(100.0%, 100.0%) |
|                       |          |        |     | PsV Neutralization 50% Titer | 79.7%<br>(72.9%, 86.6%)    |
|                       |          |        |     | PsV Neutralization 80% Titer | 88.2%<br>(82.8%, 93.7%)    |
|                       | Day 57   | 284    |     | Binding Antibody to RBD      | 100.0%<br>(100.0%, 100.0%) |
|                       |          |        |     | Binding Antibody to Spike    | 100.0%<br>(100.0%, 100.0%) |

Table 2.38: Table 8d. Differences of responder rates between the vaccine arm and the placebo by Age, Risk for Severe Covid-19 (continued)

| Group                    | Baseline | Visit                     | N                            | Endpoint                     | 2-Fold Rise                | 4-Fold                     |
|--------------------------|----------|---------------------------|------------------------------|------------------------------|----------------------------|----------------------------|
| Positive                 | Day 29   | 98                        | Binding Antibody to RBD      | PsV Neutralization 50% Titer | 95.7%<br>(92.3%, 99.2%)    | 94.1%<br>(90.0%, 99.0%)    |
|                          |          |                           |                              | PsV Neutralization 80% Titer | 100.0%<br>(100.0%, 100.0%) | 98.3%<br>(96.1%, 100.0%)   |
|                          |          |                           |                              | PsV Neutralization 50% Titer | 20.4%<br>(5.5%, 35.2%)     | 27.4%<br>(8.8%, 35.2%)     |
|                          |          |                           |                              | PsV Neutralization 80% Titer | 22.9%<br>(9.5%, 36.2%)     | 27.3%<br>(13.5%, 36.2%)    |
|                          |          |                           | Binding Antibody to RBD      | Binding Antibody to Spike    | 0.0%<br>(0.0%, 0.0%)       | 0.0%<br>(0.0%, 0.0%)       |
|                          | Day 57   | 98                        |                              | PsV Neutralization 50% Titer | 2.9%<br>(-6.0%, 11.7%)     | 7.6%<br>(-3.9%, 11.7%)     |
|                          |          | Binding Antibody to Spike | PsV Neutralization 80% Titer | 6.7%<br>(-0.1%, 13.5%)       | 8.9%<br>(1.1%, 13.5%)      |                            |
|                          |          |                           | Binding Antibody to RBD      | 100.0%<br>(100.0%, 100.0%)   | 100.0%<br>(100.0%, 100.0%) |                            |
|                          |          |                           | Binding Antibody to Spike    | 100.0%<br>(100.0%, 100.0%)   | 100.0%<br>(100.0%, 100.0%) |                            |
|                          |          | Binding Antibody to RBD   | PsV Neutralization 50% Titer | 87.3%<br>(81.7%, 92.9%)      | 77.6%<br>(70.6%, 92.9%)    |                            |
| Age $i = 65$ Not at-risk | Negative | Day 29                    | Binding Antibody to RBD      | PsV Neutralization 80% Titer | 95.2%<br>(91.6%, 98.8%)    | 84.6%<br>(78.6%, 98.8%)    |
|                          |          |                           |                              | Binding Antibody to Spike    | 100.0%<br>(100.0%, 100.0%) | 100.0%<br>(100.0%, 100.0%) |
|                          |          |                           |                              | PsV Neutralization 50% Titer | 97.8%<br>(95.3%, 100.3%)   | 97.4%<br>(94.7%, 100.3%)   |
|                          |          |                           | Binding Antibody to Spike    | PsV Neutralization 80% Titer | 97.8%<br>(95.3%, 100.3%)   | 97.8%<br>(95.3%, 100.3%)   |
|                          | Day 57   | 265                       |                              | Binding Antibody to RBD      | 0.0%<br>(-0.0%, 0.0%)      | 0.0%<br>(-0.0%, 0.0%)      |
|                          |          | Binding Antibody to RBD   | Binding Antibody to Spike    | 0.0%<br>(0.0%, 0.0%)         | 0.0%<br>(0.0%, 0.0%)       |                            |
|                          |          |                           | PsV Neutralization 50% Titer | 100.0%<br>(100.0%, 100.0%)   | 100.0%<br>(100.0%, 100.0%) |                            |
|                          |          |                           | PsV Neutralization 80% Titer | 100.0%<br>(100.0%, 100.0%)   | 100.0%<br>(100.0%, 100.0%) |                            |
|                          |          | Binding Antibody to RBD   | Binding Antibody to Spike    | 0.0%<br>(0.0%, 0.0%)         | 0.0%<br>(0.0%, 0.0%)       |                            |
|                          |          |                           | PsV Neutralization 50% Titer | 0.0%<br>(0.0%, 0.0%)         | 0.0%<br>(0.0%, 0.0%)       |                            |
|                          | Positive | Day 29                    | 151                          | Binding Antibody to RBD      | 0.0%<br>(-0.0%, 0.0%)      | 0.0%<br>(-0.0%, 0.0%)      |
|                          |          |                           |                              | Binding Antibody to Spike    | 0.0%<br>(0.0%, 0.0%)       | 0.0%<br>(0.0%, 0.0%)       |

Table 2.38: Table 8d. Differences of responder rates between the vaccine arm and the by Age, Risk for Severe Covid-19 (continued)

| Group  | Baseline | Visit | N | Endpoint                     | 2-Fold Rise    |
|--------|----------|-------|---|------------------------------|----------------|
|        |          |       |   |                              | (-0.0%, 0.0%)  |
|        |          |       |   | PsV Neutralization 50% Titer | 13.8%          |
|        |          |       |   |                              | (2.2%, 25.4%)  |
|        |          |       |   | PsV Neutralization 80% Titer | 3.2%           |
|        |          |       |   |                              | (-4.9%, 11.4%) |
| Day 57 | 151      |       |   | Binding Antibody to RBD      | 0.0%           |
|        |          |       |   |                              | (-0.0%, 0.0%)  |
|        |          |       |   | Binding Antibody to Spike    | 0.0%           |
|        |          |       |   |                              | (-0.0%, 0.0%)  |
|        |          |       |   | PsV Neutralization 50% Titer | 1.9%           |
|        |          |       |   |                              | (-1.2%, 5.1%)  |
|        |          |       |   | PsV Neutralization 80% Titer | 0.6%           |
|        |          |       |   |                              | (-1.2%, 2.4%)  |

All calculations were weighted by the inverse probability sampling (IPS), defined based on the subcohort sample.

Table 2.39: Table 8e. Differences of responder rates between the vaccine arm and the placebo by Sex

| Group  | Baseline | Visit  | N   | Endpoint                     | 2-Fold Rise      | 4-Fold           |
|--------|----------|--------|-----|------------------------------|------------------|------------------|
| Female | Negative | Day 29 | 597 | Binding Antibody to RBD      | 100.0%           | 100.0%           |
|        |          |        |     |                              | (100.0%, 100.0%) | (100.0%, 100.0%) |
|        |          | Day 57 | 597 | Binding Antibody to Spike    | 100.0%           | 100.0%           |
|        |          |        |     |                              | (100.0%, 100.0%) | (100.0%, 100.0%) |
|        |          |        |     | PsV Neutralization 50% Titer | 65.7%            | 52.0%            |
|        | Positive | Day 29 | 298 |                              | (60.1%, 71.2%)   | (46.2%, 52.0%)   |
|        |          |        |     | PsV Neutralization 80% Titer | 78.8%            | 68.3%            |
|        |          | Day 57 | 298 | Binding Antibody to RBD      | (74.1%, 83.6%)   | (62.9%, 71.1%)   |
|        |          |        |     |                              | 100.0%           | 100.0%           |
|        |          |        |     | Binding Antibody to Spike    | (100.0%, 100.0%) | (100.0%, 100.0%) |
| Male   | Negative | Day 29 | 465 | PsV Neutralization 50% Titer | 95.0%            | 91.1%            |
|        |          |        |     |                              | (92.5%, 97.5%)   | (87.8%, 92.2%)   |
|        |          | Day 57 | 465 | PsV Neutralization 80% Titer | 98.4%            | 94.7%            |
|        |          |        |     |                              | (97.0%, 99.9%)   | (92.2%, 94.7%)   |
|        |          |        |     | Binding Antibody to RBD      | -0.0%            | 0.3%             |
|        | Positive | Day 29 | 298 |                              | (-0.0%, 0.0%)    | (-0.6%, 0.3%)    |
|        |          |        |     | Binding Antibody to Spike    | -0.0%            | -0.0%            |
|        |          | Day 57 | 298 |                              | (-0.0%, 0.0%)    | (-0.0%, -0.0%)   |
|        |          |        |     | PsV Neutralization 50% Titer | 21.4%            | 21.3%            |
|        |          |        |     |                              | (10.6%, 32.2%)   | (10.2%, 21.3%)   |
|        | Male     | Day 29 | 465 | PsV Neutralization 80% Titer | 2.0%             | 13.4%            |
|        |          |        |     |                              | (-6.7%, 10.6%)   | (2.8%, 13.4%)    |
|        |          | Day 57 | 465 | Binding Antibody to RBD      | -0.0%            | -0.0%            |
|        |          |        |     |                              | (-0.0%, 0.0%)    | (-0.0%, -0.0%)   |
|        |          |        |     | Binding Antibody to Spike    | -0.0%            | -0.0%            |
|        | Female   | Day 29 | 597 |                              | (-0.0%, 0.0%)    | (-0.0%, -0.0%)   |
|        |          |        |     | PsV Neutralization 50% Titer | 15.0%            | 19.0%            |
|        |          | Day 57 | 597 |                              | (8.1%, 21.8%)    | (11.1%, 19.0%)   |
|        |          |        |     | PsV Neutralization 80% Titer | 3.8%             | 6.7%             |
|        |          |        |     |                              | (0.4%, 7.2%)     | (1.6%, 6.7%)     |
|        | Male     | Day 29 | 298 | Binding Antibody to RBD      | 100.0%           | 100.0%           |
|        |          |        |     |                              | (100.0%, 100.0%) | (100.0%, 100.0%) |
|        |          | Day 57 | 298 | Binding Antibody to Spike    | 100.0%           | 100.0%           |
|        |          |        |     |                              | (100.0%, 100.0%) | (100.0%, 100.0%) |
|        |          |        |     | PsV Neutralization 50% Titer | 66.1%            | 51.4%            |
|        |          |        |     |                              | (59.9%, 72.2%)   | (44.9%, 51.4%)   |

Table 2.39: Table 8e. Differences of responder rates between the vaccine arm and the by Sex (continued)

| Group    | Baseline | Visit | N | Endpoint                     | 2-Fold Rise                |
|----------|----------|-------|---|------------------------------|----------------------------|
|          |          |       |   | PsV Neutralization 80% Titer | 81.1%<br>(76.1%, 86.2%)    |
|          | Day 57   | 465   |   | Binding Antibody to RBD      | 100.0%<br>(100.0%, 100.0%) |
|          |          |       |   | Binding Antibody to Spike    | 100.0%<br>(100.0%, 100.0%) |
|          |          |       |   | PsV Neutralization 50% Titer | 96.0%<br>(93.5%, 98.6%)    |
|          |          |       |   | PsV Neutralization 80% Titer | 95.9%<br>(93.3%, 98.5%)    |
| Positive | Day 29   | 245   |   | Binding Antibody to RBD      | 0.0%<br>(0.0%, 0.0%)       |
|          |          |       |   | Binding Antibody to Spike    | 0.0%<br>(0.0%, 0.0%)       |
|          |          |       |   | PsV Neutralization 50% Titer | 28.3%<br>(17.1%, 39.6%)    |
|          |          |       |   | PsV Neutralization 80% Titer | 15.4%<br>(5.9%, 25.0%)     |
|          | Day 57   | 245   |   | Binding Antibody to RBD      | 0.0%<br>(0.0%, 0.0%)       |
|          |          |       |   | Binding Antibody to Spike    | 0.0%<br>(0.0%, 0.0%)       |
|          |          |       |   | PsV Neutralization 50% Titer | 9.1%<br>(2.1%, 16.0%)      |
|          |          |       |   | PsV Neutralization 80% Titer | -1.4%<br>(-4.2%, 1.5%)     |

All calculations were weighted by the inverse probability sampling (IPS), defined based on the subcohort sample.

Table 2.40: Table 8f. Differences of responder rates between the vaccine arm and the placebo by Age, sex

| Group                | Baseline | Visit  | N   | Endpoint                     | 2-Fold Rise      | 4-Fold   |
|----------------------|----------|--------|-----|------------------------------|------------------|----------|
| Age $\geq$ 65 Female | Negative | Day 29 | 291 | Binding Antibody to RBD      | 100.0%           | 100.0%   |
|                      |          |        |     |                              | (100.0%, 100.0%) | (100.0%) |
|                      |          | Day 57 | 291 | Binding Antibody to Spike    | 100.0%           | 100.0%   |
|                      |          |        |     |                              | (100.0%, 100.0%) | (100.0%) |
|                      |          |        |     | PsV Neutralization 50% Titer | 61.1%            | 46.6%    |
|                      | Positive | Day 29 | 166 |                              | (53.0%, 69.2%)   | (38.3%)  |
|                      |          |        |     | Binding Antibody to RBD      | 75.0%            | 65.2%    |
|                      |          | Day 57 | 166 | Binding Antibody to Spike    | (67.8%, 82.1%)   | (57.3%)  |
|                      |          |        |     | PsV Neutralization 50% Titer | 100.0%           | 100.0%   |
|                      |          |        |     |                              | (100.0%, 100.0%) | (100.0%) |
| Age $\geq$ 65 Male   | Negative | Day 29 | 222 | Binding Antibody to RBD      | 100.0%           | 100.0%   |
|                      |          |        |     |                              | (100.0%, 100.0%) | (100.0%) |
|                      |          | Day 57 | 222 | Binding Antibody to Spike    | 100.0%           | 100.0%   |
|                      |          |        |     |                              | (100.0%, 100.0%) | (100.0%) |
|                      |          |        |     | PsV Neutralization 50% Titer | 61.0%            | 45.5%    |
|                      | Positive | Day 29 | 166 |                              | (51.7%, 70.4%)   | (36.0%)  |
|                      |          |        |     | Binding Antibody to RBD      | 0.0%             | 0.4%     |
|                      |          | Day 57 | 166 | Binding Antibody to Spike    | (-0.0%, 0.0%)    | (-1.0%)  |
|                      |          |        |     | PsV Neutralization 50% Titer | 0.0%             | 0.0%     |
|                      |          |        |     |                              | (-0.0%, 0.0%)    | (-0.0%)  |

Table 2.40: Table 8f. Differences of responder rates between the vaccine arm and the by Age, sex (continued)

| Group                | Baseline | Visit  | N   | Endpoint                     | 2-Fold Rise                |
|----------------------|----------|--------|-----|------------------------------|----------------------------|
|                      |          |        |     | PsV Neutralization 80% Titer | 78.8%<br>(71.0%, 86.6%)    |
|                      | Day 57   | 222    |     | Binding Antibody to RBD      | 100.0%<br>(100.0%, 100.0%) |
|                      |          |        |     | Binding Antibody to Spike    | 100.0%<br>(100.0%, 100.0%) |
|                      |          |        |     | PsV Neutralization 50% Titer | 95.9%                      |
|                      |          |        |     |                              | (92.1%, 99.7%)             |
|                      |          |        |     | PsV Neutralization 80% Titer | 95.1%<br>(90.9%, 99.2%)    |
| Positive             | Day 29   | 128    |     | Binding Antibody to RBD      | 0.0%<br>(-0.0%, 0.0%)      |
|                      |          |        |     | Binding Antibody to Spike    | 0.0%<br>(-0.0%, 0.0%)      |
|                      |          |        |     | PsV Neutralization 50% Titer | 33.7%<br>(17.8%, 49.6%)    |
|                      |          |        |     | PsV Neutralization 80% Titer | 19.6%                      |
|                      |          |        |     |                              | (5.7%, 33.5%)              |
|                      | Day 57   | 128    |     | Binding Antibody to RBD      | 0.0%<br>(-0.0%, 0.0%)      |
|                      |          |        |     | Binding Antibody to Spike    | 0.0%<br>(-0.0%, 0.0%)      |
|                      |          |        |     | PsV Neutralization 50% Titer | 11.9%<br>(1.5%, 22.3%)     |
|                      |          |        |     | PsV Neutralization 80% Titer | -2.4%<br>(-6.4%, 1.6%)     |
| Age $\geq$ 65 Female | Negative | Day 29 | 306 | Binding Antibody to RBD      | 100.0%<br>(100.0%, 100.0%) |
|                      |          |        |     | Binding Antibody to Spike    | 100.0%<br>(100.0%, 100.0%) |
|                      |          |        |     | PsV Neutralization 50% Titer | 82.4%<br>(76.1%, 88.7%)    |
|                      |          |        |     | PsV Neutralization 80% Titer | 93.1%<br>(89.0%, 97.3%)    |
|                      | Day 57   | 306    |     | Binding Antibody to RBD      | 100.0%<br>(100.0%, 100.0%) |
|                      |          |        |     | Binding Antibody to Spike    | 100.0%<br>(100.0%, 100.0%) |

Table 2.40: Table 8f. Differences of responder rates between the vaccine arm and the placebo by Age, sex (continued)

| Group             | Baseline | Visit  | N   | Endpoint                     | 2-Fold Rise              | 4-Fold                   |
|-------------------|----------|--------|-----|------------------------------|--------------------------|--------------------------|
| Age $i = 65$ Male | Positive | Day 29 | 132 | PsV Neutralization 50% Titer | 96.9%<br>(94.0%, 99.8%)  | 95.7%<br>(92.4%, 99.8%)  |
|                   |          |        |     | PsV Neutralization 80% Titer | 98.9%<br>(97.1%, 100.6%) | 98.1%<br>(95.8%, 100.6%) |
|                   |          | Day 57 | 132 | Binding Antibody to RBD      | 0.0%<br>(-0.0%, 0.0%)    | 0.0%<br>(-0.0%, 0.0%)    |
|                   |          |        |     | Binding Antibody to Spike    | 0.0%<br>(-0.0%, 0.0%)    | 0.0%<br>(-0.0%, 0.0%)    |
|                   |          |        |     | PsV Neutralization 50% Titer | 18.6%<br>(5.7%, 31.5%)   | 24.4%<br>(8.7%, 31.5%)   |
|                   | Negative | Day 29 | 243 | PsV Neutralization 80% Titer | 17.5%<br>(6.6%, 28.4%)   | 24.4%<br>(12.3%, 28.4%)  |
|                   |          |        |     | Binding Antibody to RBD      | 0.0%<br>(-0.0%, 0.0%)    | 0.0%<br>(-0.0%, 0.0%)    |
|                   |          | Day 57 | 243 | Binding Antibody to Spike    | 0.0%<br>(-0.0%, 0.0%)    | 0.0%<br>(-0.0%, 0.0%)    |
|                   |          |        |     | PsV Neutralization 50% Titer | 3.6%<br>(-2.3%, 9.5%)    | 6.9%<br>(-0.1%, 9.5%)    |
|                   |          |        |     | PsV Neutralization 80% Titer | 3.3%<br>(-0.8%, 7.5%)    | 3.3%<br>(-0.8%, 7.5%)    |

Table 2.40: Table 8f. Differences of responder rates between the vaccine arm and the by Age, sex (continued)

| Group  | Baseline | Visit | N | Endpoint                     | 2-Fold Rise    |
|--------|----------|-------|---|------------------------------|----------------|
|        |          |       |   |                              | (-0.0%, 0.0%)  |
|        |          |       |   | PsV Neutralization 50% Titer | 14.2%          |
|        |          |       |   |                              | (1.2%, 27.2%)  |
|        |          |       |   | PsV Neutralization 80% Titer | 3.6%           |
|        |          |       |   |                              | (-5.9%, 13.1%) |
| Day 57 | 117      |       |   | Binding Antibody to RBD      | 0.0%           |
|        |          |       |   |                              | (-0.0%, 0.0%)  |
|        |          |       |   | Binding Antibody to Spike    | 0.0%           |
|        |          |       |   |                              | (-0.0%, 0.0%)  |
|        |          |       |   | PsV Neutralization 50% Titer | 0.6%           |
|        |          |       |   |                              | (-4.7%, 5.9%)  |
|        |          |       |   | PsV Neutralization 80% Titer | 2.4%           |
|        |          |       |   |                              | (-1.6%, 6.5%)  |

All calculations were weighted by the inverse probability sampling (IPS), defined based on the subcohort sample.

Table 2.41: Table 8g. Differences of responder rates between the vaccine arm and the placebo by Hispanic or Latino ethnicity

| Group                  | Baseline               | Visit  | N   | Endpoint                     | 2-Fold Rise      | 4-Fold   |
|------------------------|------------------------|--------|-----|------------------------------|------------------|----------|
| Hispanic or Latino     | Negative               | Day 29 | 125 | Binding Antibody to RBD      | 100.0%           | 100.0%   |
|                        |                        |        |     |                              | (100.0%, 100.0%) | (100.0%) |
|                        |                        | Day 57 | 125 | Binding Antibody to Spike    | 100.0%           | 100.0%   |
|                        |                        |        |     |                              | (100.0%, 100.0%) | (100.0%) |
|                        |                        |        |     | PsV Neutralization 50% Titer | 56.2%            | 44.8%    |
|                        | Positive               | Day 29 | 77  |                              | (44.2%, 68.2%)   | (32.8%)  |
|                        |                        |        |     | PsV Neutralization 80% Titer | 80.3%            | 69.3%    |
|                        |                        | Day 57 | 77  | Binding Antibody to RBD      | (70.6%, 89.9%)   | (58.2%)  |
|                        |                        |        |     |                              | 100.0%           | 100.0%   |
|                        |                        |        |     | Binding Antibody to Spike    | (100.0%, 100.0%) | (100.0%) |
| Not Hispanic or Latino | Negative               | Day 29 | 844 | PsV Neutralization 50% Titer | 97.8%            | 90.5%    |
|                        |                        |        |     |                              | (94.3%, 101.4%)  | (83.4%)  |
|                        |                        | Day 57 | 77  | PsV Neutralization 80% Titer | 92.2%            | 90.6%    |
|                        |                        |        |     |                              | (85.7%, 98.7%)   | (83.5%)  |
|                        |                        |        |     | Binding Antibody to RBD      | -0.0%            | -0.0%    |
|                        | Positive               | Day 29 | 77  |                              | (-0.0%, 0.0%)    | (-0.0%)  |
|                        |                        |        |     | Binding Antibody to Spike    | -0.0%            | -0.0%    |
|                        |                        | Day 57 | 77  |                              | (-0.0%, 0.0%)    | (-0.0%)  |
|                        |                        |        |     | PsV Neutralization 50% Titer | 34.8%            | 36.5%    |
|                        |                        |        |     |                              | (14.2%, 55.4%)   | (15.5%)  |
| Not Hispanic or Latino | Positive               | Day 29 | 77  | PsV Neutralization 80% Titer | 10.1%            | 25.4%    |
|                        |                        |        |     |                              | (-7.4%, 27.7%)   | (4.3%,   |
|                        |                        | Day 57 | 77  | Binding Antibody to RBD      | -0.0%            | -0.0%    |
|                        |                        |        |     |                              | (-0.0%, 0.0%)    | (-0.0%)  |
|                        |                        |        |     | Binding Antibody to Spike    | -0.0%            | -0.0%    |
|                        | Not Hispanic or Latino | Day 29 | 844 |                              | (-0.0%, 0.0%)    | (-0.0%)  |
|                        |                        |        |     | PsV Neutralization 50% Titer | 10.8%            | 12.0%    |
|                        |                        | Day 57 | 77  |                              | (-3.0%, 24.7%)   | (-2.1%)  |
|                        |                        |        |     | PsV Neutralization 80% Titer | -3.5%            | 1.7%     |
|                        |                        |        |     |                              | (-12.0%, 5.0%)   | (-9.3%)  |

Table 2.41: Table 8g. Differences of responder rates between the vaccine arm and the by Hispanic or Latino ethnicity (continued)

| Group                    | Baseline | Visit  | N  | Endpoint                     | 2-Fold Rise                |
|--------------------------|----------|--------|----|------------------------------|----------------------------|
|                          |          |        |    | PsV Neutralization 80% Titer | 80.2%<br>(76.2%, 84.1%)    |
|                          | Day 57   | 844    |    | Binding Antibody to RBD      | 100.0%<br>(100.0%, 100.0%) |
|                          |          |        |    | Binding Antibody to Spike    | 100.0%<br>(100.0%, 100.0%) |
|                          |          |        |    | PsV Neutralization 50% Titer | 95.0%<br>(92.9%, 97.2%)    |
|                          |          |        |    | PsV Neutralization 80% Titer | 97.7%<br>(96.2%, 99.2%)    |
| Positive                 | Day 29   | 406    |    | Binding Antibody to RBD      | 0.0%<br>(0.0%, 0.0%)       |
|                          |          |        |    | Binding Antibody to Spike    | 0.0%<br>(0.0%, 0.0%)       |
|                          |          |        |    | PsV Neutralization 50% Titer | 23.5%<br>(14.5%, 32.6%)    |
|                          |          |        |    | PsV Neutralization 80% Titer | 8.5%<br>(0.8%, 16.2%)      |
|                          | Day 57   | 406    |    | Binding Antibody to RBD      | 0.0%<br>(0.0%, 0.0%)       |
|                          |          |        |    | Binding Antibody to Spike    | 0.0%<br>(0.0%, 0.0%)       |
|                          |          |        |    | PsV Neutralization 50% Titer | 11.7%<br>(6.4%, 16.9%)     |
|                          |          |        |    | PsV Neutralization 80% Titer | 1.7%<br>(-0.4%, 3.7%)      |
| Not reported and unknown | Negative | Day 29 | 93 | Binding Antibody to RBD      | 100.0%<br>(100.0%, 100.0%) |
|                          |          |        |    | Binding Antibody to Spike    | 100.0%<br>(100.0%, 100.0%) |
|                          |          |        |    | PsV Neutralization 50% Titer | 67.6%<br>(55.0%, 80.3%)    |
|                          |          |        |    | PsV Neutralization 80% Titer | 76.3%<br>(64.8%, 87.7%)    |
|                          | Day 57   | 93     |    | Binding Antibody to RBD      | 100.0%<br>(100.0%, 100.0%) |
|                          |          |        |    | Binding Antibody to Spike    | 100.0%<br>(100.0%, 100.0%) |

Table 2.41: Table 8g. Differences of responder rates between the vaccine arm and the placebo arm by Hispanic or Latino ethnicity (continued)

| Group    | Baseline | Visit | N | Endpoint                     | 2-Fold Rise                | 4-Fold Rise             |
|----------|----------|-------|---|------------------------------|----------------------------|-------------------------|
|          |          |       |   | PsV Neutralization 50% Titer | 96.6%<br>(91.7%, 101.5%)   | 91.4%<br>(83.9%, 93.9%) |
|          |          |       |   | PsV Neutralization 80% Titer | 100.0%<br>(100.0%, 100.0%) | 93.4%<br>(86.7%, 93.4%) |
| Positive | Day 29   | 60    |   | Binding Antibody to RBD      | 0.0%<br>(-0.0%, 0.0%)      | 0.0%<br>(-0.0%, 0.0%)   |
|          |          |       |   | Binding Antibody to Spike    | 0.0%<br>(-0.0%, 0.0%)      | 0.0%<br>(-0.0%, 0.0%)   |
|          |          |       |   | PsV Neutralization 50% Titer | 15.5%<br>(-9.1%, 40.2%)    | 29.1%<br>(5.1%, 40.2%)  |
|          |          |       |   | PsV Neutralization 80% Titer | -1.0%<br>(-11.9%, 9.9%)    | -7.5%<br>(-27.3%, 9.9%) |
|          | Day 57   | 60    |   | Binding Antibody to RBD      | 0.0%<br>(-0.0%, 0.0%)      | 0.0%<br>(-0.0%, 0.0%)   |
|          |          |       |   | Binding Antibody to Spike    | 0.0%<br>(-0.0%, 0.0%)      | 0.0%<br>(-0.0%, 0.0%)   |
|          |          |       |   | PsV Neutralization 50% Titer | 20.6%<br>(1.4%, 39.9%)     | 40.2%<br>(19.5%, 39.9%) |
|          |          |       |   | PsV Neutralization 80% Titer | 9.0%<br>(-1.4%, 19.3%)     | 17.2%<br>(3.6%, 19.3%)  |

All calculations were weighted by the inverse probability sampling (IPS), defined based on the subcohort sampling strata.

Table 2.42: Table 8h. Differences of responder rates between the vaccine arm and the by Race

| Group                            | Baseline | Visit  | N  | Endpoint                     | 2-Fold Rise                    |
|----------------------------------|----------|--------|----|------------------------------|--------------------------------|
| Not reported and unknown         | Negative | Day 29 | 98 | Binding Antibody to RBD      | 100.0%<br>(100.0%, 100.0%)     |
|                                  |          |        |    | Binding Antibody to Spike    | 100.0%<br>(100.0%, 100.0%)     |
|                                  |          | Day 57 | 98 | PsV Neutralization 50% Titer | 63.8%<br><br>(50.3%, 77.3%)    |
|                                  |          |        |    | PsV Neutralization 80% Titer | 78.0%<br>(66.4%, 89.6%)        |
|                                  |          |        |    | Binding Antibody to RBD      | 100.0%<br>(100.0%, 100.0%)     |
|                                  | Positive | Day 29 | 48 | Binding Antibody to Spike    | 100.0%<br>(100.0%, 100.0%)     |
|                                  |          |        |    | PsV Neutralization 50% Titer | 97.9%<br>(93.9%, 101.9%)       |
|                                  |          | Day 57 | 48 | PsV Neutralization 80% Titer | 99.1%<br><br>(96.4%, 101.8%)   |
|                                  |          |        |    | Binding Antibody to RBD      | -0.0%<br>(-0.0%, 0.0%)         |
|                                  |          |        |    | Binding Antibody to Spike    | -0.0%<br>(-0.0%, 0.0%)         |
| American Indian or Alaska Native | Negative | Day 29 | 27 | PsV Neutralization 50% Titer | 38.0%<br>(12.4%, 63.6%)        |
|                                  |          |        |    | PsV Neutralization 80% Titer | 23.1%<br>(1.8%, 44.4%)         |
|                                  |          | Day 57 | 48 | Binding Antibody to RBD      | -0.0%<br><br>(-0.0%, 0.0%)     |
|                                  |          |        |    | Binding Antibody to Spike    | -0.0%<br>(-0.0%, 0.0%)         |
|                                  |          |        |    | PsV Neutralization 50% Titer | -4.6%<br>(-13.5%, 4.3%)        |
|                                  |          |        |    | PsV Neutralization 80% Titer | -0.0%<br>(-0.0%, 0.0%)         |
|                                  |          |        |    | Binding Antibody to RBD      | 100.0%<br><br>(100.0%, 100.0%) |
|                                  |          |        |    | Binding Antibody to Spike    | 100.0%<br><br>(100.0%, 100.0%) |
|                                  |          |        |    | PsV Neutralization 50% Titer | 62.8%                          |

Table 2.42: Table 8h. Differences of responder rates between the vaccine arm and the placebo by Race (continued)

| Group    | Baseline | Visit  | N  | Endpoint                     | 2-Fold Rise    | 4-Fold  |
|----------|----------|--------|----|------------------------------|----------------|---------|
| Asian    | Positive | Day 29 | 17 | PsV Neutralization 80% Titer | (36.1%, 89.4%) | (21.9%) |
|          |          |        |    | 75.8%                        | 51.5%          |         |
|          |          |        |    | (52.1%, 99.4%)               | (24.0%)        |         |
|          |          |        |    | Binding Antibody to RBD      | 100.0%         | 100.0%  |
|          |          |        |    | (100.0%, 100.0%)             | (100.0%)       |         |
|          | Negative | Day 29 | 84 | Binding Antibody to Spike    | 100.0%         | 100.0%  |
|          |          |        |    | (100.0%, 100.0%)             | (100.0%)       |         |
|          |          |        |    | PsV Neutralization 50% Titer | 98.2%          | 98.2%   |
|          |          |        |    | (90.9%, 105.5%)              | (90.9%)        |         |
|          |          |        |    | PsV Neutralization 80% Titer | 98.2%          | 98.2%   |
| White    | Positive | Day 57 | 17 | (90.9%, 105.5%)              | (90.9%)        |         |
|          |          |        |    | Binding Antibody to RBD      | -0.0%          | -0.0%   |
|          |          |        |    | (-0.0%, -0.0%)               | (-0.0%)        |         |
|          |          |        |    | Binding Antibody to Spike    | -0.0%          | -0.0%   |
|          |          |        |    | (-0.0%, -0.0%)               | (-0.0%)        |         |
|          | Negative | Day 29 | 84 | PsV Neutralization 50% Titer | 61.7%          | 23.3%   |
|          |          |        |    | (31.2%, 92.2%)               | (-28.1%)       |         |
|          |          |        |    | PsV Neutralization 80% Titer | 12.0%          | 28.4%   |
|          |          |        |    | (-18.9%, 42.9%)              | (-20.5%)       |         |
|          |          |        |    | Binding Antibody to RBD      | -0.0%          | -0.0%   |
| Black    | Positive | Day 57 | 84 | (-0.0%, -0.0%)               | (-0.0%)        |         |
|          |          |        |    | Binding Antibody to Spike    | -0.0%          | -0.0%   |
|          |          |        |    | (-0.0%, -0.0%)               | (-0.0%)        |         |
|          |          |        |    | PsV Neutralization 50% Titer | 8.8%           | 8.8%    |
|          |          |        |    | (-9.0%, 26.5%)               | (-9.0%)        |         |
|          | Negative | Day 29 | 84 | PsV Neutralization 80% Titer | -0.0%          | -0.0%   |
|          |          |        |    | (-0.0%, -0.0%)               | (-0.0%)        |         |
|          |          |        |    | Binding Antibody to RBD      | 100.0%         | 100.0%  |
|          |          |        |    | (100.0%, 100.0%)             | (100.0%)       |         |
|          |          |        |    | Binding Antibody to Spike    | 100.0%         | 100.0%  |
| Hispanic | Positive | Day 57 | 84 | (100.0%, 100.0%)             | (100.0%)       |         |
|          |          |        |    | PsV Neutralization 50% Titer | 65.5%          | 45.7%   |
|          |          |        |    | (49.5%, 81.5%)               | (28.9%)        |         |
|          |          |        |    | PsV Neutralization 80% Titer | 89.1%          | 69.3%   |
|          |          |        |    | (78.5%, 99.6%)               | (53.8%)        |         |
|          | Negative | Day 29 | 84 | Binding Antibody to RBD      | 100.0%         | 100.0%  |
|          |          |        |    | (100.0%, 100.0%)             | (100.0%)       |         |
|          |          |        |    | Binding Antibody to Spike    | 100.0%         | 100.0%  |
|          |          |        |    | (100.0%, 100.0%)             | (100.0%)       |         |

Table 2.42: Table 8h. Differences of responder rates between the vaccine arm and the by Race (continued)

| Group                     | Baseline | Visit  | N   | Endpoint                     | 2-Fold Rise      |
|---------------------------|----------|--------|-----|------------------------------|------------------|
| Black or African American | Positive | Day 29 | 46  | PsV Neutralization 50% Titer | (100.0%, 100.0%) |
|                           |          |        |     | PsV Neutralization 50% Titer | 98.3%            |
|                           |          | Day 57 | 46  | PsV Neutralization 80% Titer | (93.9%, 102.7%)  |
|                           |          |        |     | PsV Neutralization 80% Titer | 98.4%            |
|                           |          |        |     | PsV Neutralization 50% Titer | (94.2%, 102.6%)  |
|                           | Negative | Day 29 | 216 | Binding Antibody to RBD      | 0.0%             |
|                           |          |        |     | Binding Antibody to Spike    | (-0.0%, 0.0%)    |
|                           |          | Day 57 | 216 | PsV Neutralization 50% Titer | -23.2%           |
|                           |          |        |     | PsV Neutralization 80% Titer | (-51.8%, 5.5%)   |
|                           |          |        |     | PsV Neutralization 80% Titer | -20.6%           |
| White                     | Positive | Day 29 | 91  | Binding Antibody to RBD      | (-46.2%, 5.1%)   |
|                           |          |        |     | Binding Antibody to Spike    | 0.0%             |
|                           |          | Day 57 | 91  | PsV Neutralization 50% Titer | (-0.0%, 0.0%)    |
|                           |          |        |     | PsV Neutralization 80% Titer | 15.3%            |
|                           |          |        |     | PsV Neutralization 80% Titer | (-5.9%, 36.5%)   |
|                           | Negative | Day 29 | 216 | PsV Neutralization 50% Titer | -9.0%            |
|                           |          |        |     | PsV Neutralization 80% Titer | (-21.7%, 3.7%)   |
|                           |          | Day 57 | 216 | Binding Antibody to RBD      | 100.0%           |
|                           |          |        |     | Binding Antibody to Spike    | (100.0%, 100.0%) |
|                           |          |        |     | PsV Neutralization 50% Titer | 63.9%            |
|                           |          | Day 57 | 216 | PsV Neutralization 80% Titer | (54.7%, 73.1%)   |
|                           |          |        |     | Binding Antibody to RBD      | 76.7%            |
|                           |          |        |     | Binding Antibody to Spike    | (68.6%, 84.9%)   |
|                           | Positive | Day 29 | 91  | PsV Neutralization 50% Titer | 100.0%           |
|                           |          |        |     | PsV Neutralization 80% Titer | (100.0%, 100.0%) |
|                           |          | Day 57 | 91  | Binding Antibody to RBD      | 100.0%           |
|                           |          |        |     | Binding Antibody to Spike    | (100.0%, 100.0%) |
|                           |          |        |     | PsV Neutralization 50% Titer | 89.6%            |
|                           |          | Day 57 | 91  | PsV Neutralization 80% Titer | (83.7%, 95.5%)   |
|                           |          |        |     | Binding Antibody to RBD      | 96.2%            |
|                           |          |        |     | Binding Antibody to Spike    | (92.5%, 99.9%)   |

Table 2.42: Table 8h. Differences of responder rates between the vaccine arm and the placebo by Race (continued)

| Group       | Baseline | Visit  | N  | Endpoint                     | 2-Fold Rise      | 4-Fold           |
|-------------|----------|--------|----|------------------------------|------------------|------------------|
| Multiracial | Negative | Day 29 | 62 | Binding Antibody to Spike    | (0.0%, 0.0%)     | (0.0%, 0.0%)     |
|             |          |        |    | PsV Neutralization 50% Titer | 0.0%             | 0.0%             |
|             |          |        |    | PsV Neutralization 80% Titer | (0.0%, 0.0%)     | (0.0%, 0.0%)     |
|             |          |        |    | Binding Antibody to RBD      | 28.8%            | 9.5%             |
|             |          |        |    | PsV Neutralization 50% Titer | (8.9%, 48.8%)    | (-11.0%, 11.0%)  |
|             | Positive | Day 29 | 28 | PsV Neutralization 80% Titer | 20.7%            | 19.7%            |
|             |          |        |    | Binding Antibody to Spike    | (4.8%, 36.6%)    | (0.1%, 1.1%)     |
|             |          |        |    | Binding Antibody to RBD      | 0.0%             | 0.0%             |
|             |          |        |    | PsV Neutralization 50% Titer | (0.0%, 0.0%)     | (0.0%, 0.0%)     |
|             |          |        |    | PsV Neutralization 80% Titer | 8.8%             | 18.0%            |
| White       | Negative | Day 57 | 91 | Binding Antibody to Spike    | (-1.6%, 19.2%)   | (4.0%, 19.2%)    |
|             |          |        |    | PsV Neutralization 50% Titer | 2.3%             | 2.3%             |
|             |          |        |    | PsV Neutralization 80% Titer | (-2.5%, 7.1%)    | (-2.5%, 7.1%)    |
|             |          |        |    | Binding Antibody to RBD      | 100.0%           | 100.0%           |
|             |          |        |    | PsV Neutralization 50% Titer | (100.0%, 100.0%) | (100.0%, 100.0%) |
|             | Positive | Day 57 | 62 | Binding Antibody to Spike    | 100.0%           | 100.0%           |
|             |          |        |    | PsV Neutralization 50% Titer | (100.0%, 100.0%) | (100.0%, 100.0%) |
|             |          |        |    | PsV Neutralization 80% Titer | 47.8%            | 33.7%            |
|             |          |        |    | Binding Antibody to RBD      | (31.9%, 63.8%)   | (18.6%, 63.8%)   |
|             |          |        |    | PsV Neutralization 80% Titer | 77.0%            | 67.0%            |
| Black       | Negative | Day 29 | 62 | Binding Antibody to Spike    | (63.6%, 90.4%)   | (52.1%, 90.4%)   |
|             |          |        |    | PsV Neutralization 50% Titer | 100.0%           | 100.0%           |
|             |          |        |    | PsV Neutralization 80% Titer | (100.0%, 100.0%) | (100.0%, 100.0%) |
|             |          |        |    | Binding Antibody to RBD      | 100.0%           | 100.0%           |
|             |          |        |    | PsV Neutralization 50% Titer | (100.0%, 100.0%) | (100.0%, 100.0%) |
|             | Positive | Day 29 | 28 | Binding Antibody to Spike    | 100.0%           | 100.0%           |
|             |          |        |    | PsV Neutralization 50% Titer | 100.0%           | 86.7%            |
|             |          |        |    | PsV Neutralization 80% Titer | (100.0%, 100.0%) | (75.9%, 100.0%)  |
|             |          |        |    | Binding Antibody to RBD      | 100.0%           | 97.2%            |
|             |          |        |    | PsV Neutralization 50% Titer | (100.0%, 100.0%) | (91.8%, 100.0%)  |

Table 2.42: Table 8h. Differences of responder rates between the vaccine arm and the by Race (continued)

| Group                                     | Baseline | Visit  | N  | Endpoint                     | 2-Fold Rise                |
|---|----------|--------|----|------------------------------|----------------------------|
|   |          | Day 57 | 28 | Binding Antibody to RBD      | (-4.3%, 42.1%)             |
|   |          |        |    | Binding Antibody to Spike    | 0.0%<br>(0.0%, 0.0%)       |
|   |          |        |    | PsV Neutralization 50% Titer | 0.0%<br>(0.0%, 0.0%)       |
|   |          |        |    | PsV Neutralization 80% Titer | 35.8%<br>(12.1%, 59.5%)    |
| Native Hawaiian or Other Pacific Islander | Negative | Day 29 | 20 | Binding Antibody to RBD      | 0.0%<br>(0.0%, 0.0%)       |
|   |          |        |    | Binding Antibody to Spike    | 100.0%<br>(100.0%, 100.0%) |
|   |          |        |    | PsV Neutralization 50% Titer | 100.0%<br>(100.0%, 100.0%) |
|   |          |        |    | PsV Neutralization 80% Titer | 69.0%<br>(32.4%, 105.7%)   |
|   |          | Day 57 | 20 | Binding Antibody to RBD      | 92.6%<br>(71.8%, 113.3%)   |
|   |          |        |    | Binding Antibody to Spike    | 100.0%<br>(100.0%, 100.0%) |
|   |          |        |    | PsV Neutralization 50% Titer | 100.0%<br>(100.0%, 100.0%) |
|   |          |        |    | PsV Neutralization 80% Titer | 100.0%<br>(100.0%, 100.0%) |
|   | Positive | Day 29 | 7  | Binding Antibody to RBD      | 0.0%<br>(-0.0%, 0.0%)      |
|   |          |        |    | Binding Antibody to Spike    | 0.0%<br>(-0.0%, 0.0%)      |
|   |          |        |    | PsV Neutralization 50% Titer | 11.6%<br>(-43.7%, 66.8%)   |
|   |          |        |    | PsV Neutralization 80% Titer | 0.0%<br>(-0.0%, 0.0%)      |
|   |          | Day 57 | 7  | Binding Antibody to RBD      | 0.0%<br>(-0.0%, 0.0%)      |
|   |          |        |    | Binding Antibody to Spike    | 0.0%<br>(-0.0%, 0.0%)      |
|   |          |        |    | PsV Neutralization 50% Titer | 14.7%                      |

Table 2.42: Table 8h. Differences of responder rates between the vaccine arm and the placebo by Race (continued)

| Group | Baseline | Visit  | N  | Endpoint                     | 2-Fold Rise      | 4-Fold  |
|-------|----------|--------|----|------------------------------|------------------|---------|
| Other | Negative | Day 29 | 28 | PsV Neutralization 80% Titer | (-46.5%, 75.8%)  | (-46.5% |
|       |          |        |    | Binding Antibody to RBD      | 0.0%             | 0.0%    |
|       |          | Day 57 | 28 | Binding Antibody to Spike    | (-0.0%, 0.0%)    | (-0.0%  |
|       |          |        |    | PsV Neutralization 50% Titer | 100.0%           | 100.0%  |
|       |          |        |    | PsV Neutralization 80% Titer | (100.0%, 100.0%) | (100.0% |
|       | Positive | Day 29 | 24 | Binding Antibody to Spike    | 100.0%           | 100.0%  |
|       |          |        |    | PsV Neutralization 50% Titer | (100.0%, 100.0%) | (100.0% |
|       |          | Day 57 | 24 | Binding Antibody to RBD      | 74.2%            | 65.2%   |
|       |          |        |    | Binding Antibody to Spike    | (36.8%, 111.7%)  | (24.4%  |
|       |          |        |    | PsV Neutralization 80% Titer | 67.4%            | 64.1%   |
| White | Negative | Day 29 | 43 | PsV Neutralization 80% Titer | (27.2%, 107.5%)  | (23.0%  |
|       |          |        |    | Binding Antibody to RBD      | 100.0%           | 100.0%  |
|       |          | Day 57 | 43 | Binding Antibody to Spike    | (100.0%, 100.0%) | (100.0% |
|       |          |        |    | PsV Neutralization 50% Titer | 96.7%            | 96.7%   |
|       |          |        |    | PsV Neutralization 80% Titer | (81.4%, 112.0%)  | (81.4%  |
| Black | Negative | Day 29 | 43 | PsV Neutralization 80% Titer | 84.6%            | 84.6%   |
|       |          |        |    | Binding Antibody to RBD      | (53.8%, 115.5%)  | (53.8%  |
|       |          | Day 57 | 43 | Binding Antibody to Spike    | -0.0%            | -0.0%   |
|       |          |        |    | PsV Neutralization 50% Titer | (-0.0%, -0.0%)   | (-0.0%  |
|       |          |        |    | PsV Neutralization 80% Titer | 59.9%            | 56.4%   |
|       | Positive | Day 29 | 43 | PsV Neutralization 80% Titer | (26.8%, 93.1%)   | (24.1%  |
|       |          |        |    | Binding Antibody to RBD      | 4.0%             | 51.5%   |
|       |          | Day 57 | 43 | Binding Antibody to Spike    | (-27.4%, 35.4%)  | (16.1%  |
|       |          |        |    | PsV Neutralization 50% Titer | -0.0%            | -0.0%   |
|       |          |        |    | PsV Neutralization 80% Titer | (-0.0%, -0.0%)   | (-0.0%  |
| Asian | Negative | Day 29 | 43 | Binding Antibody to Spike    | -0.0%            | -0.0%   |
|       |          |        |    | PsV Neutralization 50% Titer | (-0.0%, -0.0%)   | (-0.0%  |
|       |          | Day 57 | 43 | Binding Antibody to RBD      | -11.5%           | -7.9%   |
|       |          |        |    | Binding Antibody to Spike    | (-35.6%, 12.6%)  | (-34.2% |
|       |          |        |    | PsV Neutralization 80% Titer | -0.0%            | 15.5%   |
|       | Positive | Day 29 | 43 | PsV Neutralization 80% Titer | (-0.0%, -0.0%)   | (-5.6%  |
|       |          |        |    | Binding Antibody to RBD      | 100.0%           | 100.0%  |
|       |          | Day 57 | 43 | Binding Antibody to Spike    | (100.0%, 100.0%) | (100.0% |
|       |          |        |    | PsV Neutralization 50% Titer | 100.0%           | 100.0%  |
|       |          |        |    | PsV Neutralization 80% Titer | (100.0%, 100.0%) | (100.0% |

Table 2.42: Table 8h. Differences of responder rates between the vaccine arm and the by Race (continued)

| Group              | Baseline | Visit  | N   | Endpoint                     | 2-Fold Rise      |
|--------------------|----------|--------|-----|------------------------------|------------------|
|                    |          |        |     |                              | (100.0%, 100.0%) |
|                    |          |        |     | PsV Neutralization 50% Titer | 74.8%            |
|                    |          |        |     |                              | (56.5%, 93.0%)   |
|                    |          |        |     | PsV Neutralization 80% Titer | 82.4%            |
|                    |          |        |     |                              | (66.4%, 98.4%)   |
|                    | Day 57   | 43     |     | Binding Antibody to RBD      | 100.0%           |
|                    |          |        |     |                              | (100.0%, 100.0%) |
|                    |          |        |     | Binding Antibody to Spike    | 100.0%           |
|                    |          |        |     |                              | (100.0%, 100.0%) |
|                    |          |        |     | PsV Neutralization 50% Titer | 92.2%            |
|                    |          |        |     |                              | (80.9%, 103.5%)  |
|                    |          |        |     | PsV Neutralization 80% Titer | 100.0%           |
|                    |          |        |     |                              | (100.0%, 100.0%) |
| Positive           | Day 29   | 38     |     | Binding Antibody to RBD      | 0.0%             |
|                    |          |        |     |                              | (0.0%, 0.0%)     |
|                    |          |        |     | Binding Antibody to Spike    | 0.0%             |
|                    |          |        |     |                              | (0.0%, 0.0%)     |
|                    |          |        |     | PsV Neutralization 50% Titer | 2.8%             |
|                    |          |        |     |                              | (-27.8%, 33.4%)  |
|                    |          |        |     | PsV Neutralization 80% Titer | -0.8%            |
|                    |          |        |     |                              | (-13.4%, 11.7%)  |
|                    | Day 57   | 38     |     | Binding Antibody to RBD      | 0.0%             |
|                    |          |        |     |                              | (0.0%, 0.0%)     |
|                    |          |        |     | Binding Antibody to Spike    | 0.0%             |
|                    |          |        |     |                              | (0.0%, 0.0%)     |
|                    |          |        |     | PsV Neutralization 50% Titer | 22.5%            |
|                    |          |        |     |                              | (-3.6%, 48.5%)   |
|                    |          |        |     | PsV Neutralization 80% Titer | 14.1%            |
|                    |          |        |     |                              | (-1.1%, 29.3%)   |
| White Non-Hispanic | Negative | Day 29 | 456 | Binding Antibody to RBD      | 100.0%           |
|                    |          |        |     |                              | (100.0%, 100.0%) |
|                    |          |        |     | Binding Antibody to Spike    | 100.0%           |
|                    |          |        |     |                              | (100.0%, 100.0%) |
|                    |          |        |     | PsV Neutralization 50% Titer | 68.9%            |
|                    |          |        |     |                              | (62.7%, 75.0%)   |
|                    |          |        |     | PsV Neutralization 80% Titer | 80.7%            |
|                    |          |        |     |                              | (75.4%, 86.0%)   |
|                    | Day 57   | 456    |     | Binding Antibody to RBD      | 100.0%           |

Table 2.42: Table 8h. Differences of responder rates between the vaccine arm and the placebo by Race (continued)

| Group    | Baseline | Visit | N | Endpoint                     | 2-Fold Rise      | 4-Fold   |
|----------|----------|-------|---|------------------------------|------------------|----------|
| Positive | Day 29   | 224   |   | Binding Antibody to Spike    | (100.0%, 100.0%) | (100.0%) |
|          |          |       |   | PsV Neutralization 50% Titer | 100.0%           | 100.0%   |
|          |          |       |   | PsV Neutralization 50% Titer | (100.0%, 100.0%) | (100.0%) |
|          |          |       |   | PsV Neutralization 80% Titer | 96.6%            | 92.4%    |
|          |          |       |   | PsV Neutralization 80% Titer | (94.1%, 99.0%)   | (88.9%)  |
|          | Day 57   | 224   |   | Binding Antibody to RBD      | 98.2%            | 95.2%    |
|          |          |       |   | Binding Antibody to Spike    | (96.4%, 99.9%)   | (92.4%)  |
|          |          |       |   | Binding Antibody to RBD      | -0.0%            | 0.5%     |
|          |          |       |   | Binding Antibody to Spike    | (-0.0%, -0.0%)   | (-0.8%)  |
|          |          |       |   | PsV Neutralization 50% Titer | 23.5%            | 11.2%    |
|          |          |       |   | PsV Neutralization 50% Titer | (11.3%, 35.6%)   | (-1.9%)  |
|          |          |       |   | PsV Neutralization 80% Titer | 7.4%             | 12.3%    |
|          |          |       |   | PsV Neutralization 80% Titer | (-3.1%, 17.9%)   | (0.3%,   |
|          |          |       |   | Binding Antibody to RBD      | -0.0%            | -0.0%    |
|          |          |       |   | Binding Antibody to Spike    | (-0.0%, -0.0%)   | (-0.0%)  |
|          |          |       |   | PsV Neutralization 50% Titer | 14.7%            | 17.3%    |
|          |          |       |   | PsV Neutralization 50% Titer | (7.7%, 21.6%)    | (8.7%,   |
|          |          |       |   | PsV Neutralization 80% Titer | 2.5%             | 1.6%     |
|          |          |       |   | PsV Neutralization 80% Titer | (-1.0%, 6.1%)    | (-3.3%)  |

All calculations were weighted by the inverse probability sampling (IPS), defined based on the subcohort sampling strata.

Table 2.43: Table 8i. Differences of responder rates between the vaccine arm and the by Race and ethnic group

| Group                | Baseline | Visit  | N   | Endpoint                     | 2-Fold Rise      |
|----------------------|----------|--------|-----|------------------------------|------------------|
| White Non-Hispanic   | Negative | Day 29 | 456 | Binding Antibody to RBD      | 100.0%           |
|                      |          |        |     | Binding Antibody to Spike    | (100.0%, 100.0%) |
|                      |          | Day 57 | 456 | PsV Neutralization 50% Titer | 100.0%           |
|                      |          |        |     | PsV Neutralization 80% Titer | (62.7%, 75.0%)   |
|                      |          |        |     | Binding Antibody to RBD      | 80.7%            |
|                      | Positive | Day 29 | 224 | Binding Antibody to Spike    | (100.0%, 100.0%) |
|                      |          |        |     | PsV Neutralization 50% Titer | 96.6%            |
|                      |          | Day 57 | 224 | PsV Neutralization 80% Titer | (94.1%, 99.0%)   |
|                      |          |        |     | Binding Antibody to RBD      | 98.2%            |
|                      |          |        |     | Binding Antibody to Spike    | (96.4%, 99.9%)   |
| Communities of Color | Negative | Day 29 | 535 | PsV Neutralization 50% Titer | -0.0%            |
|                      |          |        |     | PsV Neutralization 80% Titer | (-0.0%, -0.0%)   |
|                      |          | Day 57 | 224 | Binding Antibody to RBD      | -0.0%            |
|                      |          |        |     | Binding Antibody to Spike    | (-0.0%, -0.0%)   |
|                      |          |        |     | PsV Neutralization 50% Titer | 23.5%            |
|                      | Positive | Day 29 | 224 | PsV Neutralization 80% Titer | (11.3%, 35.6%)   |
|                      |          |        |     | Binding Antibody to RBD      | 7.4%             |
|                      |          | Day 57 | 224 | Binding Antibody to Spike    | (-3.1%, 17.9%)   |
|                      |          |        |     | PsV Neutralization 50% Titer | -0.0%            |
|                      |          |        |     | PsV Neutralization 80% Titer | (-0.0%, -0.0%)   |
|                      |          |        |     | Binding Antibody to RBD      | -0.0%            |
|                      |          |        |     | Binding Antibody to Spike    | (-0.0%, -0.0%)   |
|                      |          |        |     | PsV Neutralization 50% Titer | 14.7%            |
|                      |          |        |     | PsV Neutralization 80% Titer | (7.7%, 21.6%)    |
|                      |          |        |     | Binding Antibody to RBD      | 2.5%             |
|                      |          |        |     | Binding Antibody to Spike    | (-1.0%, 6.1%)    |
|                      |          |        |     | PsV Neutralization 50% Titer | 100.0%           |
|                      |          |        |     | PsV Neutralization 80% Titer | (100.0%, 100.0%) |
|                      |          |        |     | Binding Antibody to RBD      | 63.0%            |
|                      |          |        |     | Binding Antibody to Spike    | (57.1%, 68.9%)   |

Table 2.43: Table 8i. Differences of responder rates between the vaccine arm and the placebo by Race and ethnic group (continued)

| Group    | Baseline | Visit | N | Endpoint                     | 2-Fold Rise                | 4-Fold             |
|----------|----------|-------|---|------------------------------|----------------------------|--------------------|
|          |          |       |   | PsV Neutralization 80% Titer | 79.1%<br>(74.2%, 84.0%)    | 66.7%<br>(61.0%)   |
|          | Day 57   | 535   |   | Binding Antibody to RBD      | 100.0%<br>(100.0%, 100.0%) | 100.0%<br>(100.0%) |
|          |          |       |   | Binding Antibody to Spike    | 100.0%<br>(100.0%, 100.0%) | 100.0%<br>(100.0%) |
|          |          |       |   | PsV Neutralization 50% Titer | 94.8%<br>(92.1%, 97.5%)    | 88.7%<br>(84.9%)   |
|          |          |       |   | PsV Neutralization 80% Titer | 97.2%<br>(95.2%, 99.2%)    | 94.7%<br>(92.0%)   |
| Positive | Day 29   | 261   |   | Binding Antibody to RBD      | -0.0%<br>(-0.0%, 0.0%)     | -0.0%<br>(-0.0%)   |
|          |          |       |   | Binding Antibody to Spike    | -0.0%<br>(-0.0%, 0.0%)     | -0.0%<br>(-0.0%)   |
|          |          |       |   | PsV Neutralization 50% Titer | 26.0%<br>(14.6%, 37.4%)    | 25.8%<br>(14.2%)   |
|          |          |       |   | PsV Neutralization 80% Titer | 10.3%<br>(1.0%, 19.6%)     | 18.0%<br>(6.6%)    |
|          | Day 57   | 261   |   | Binding Antibody to RBD      | -0.0%<br>(-0.0%, 0.0%)     | -0.0%<br>(-0.0%)   |
|          |          |       |   | Binding Antibody to Spike    | -0.0%<br>(-0.0%, 0.0%)     | -0.0%<br>(-0.0%)   |
|          |          |       |   | PsV Neutralization 50% Titer | 8.1%<br>(1.3%, 14.9%)      | 13.9%<br>(6.0%)    |
|          |          |       |   | PsV Neutralization 80% Titer | -0.9%<br>(-3.7%, 1.9%)     | 6.2%<br>(1.1%)     |

All calculations were weighted by the inverse probability sampling (IPS), defined based on the subcohort sampling strata.

Table 2.44: Table 8j. Differences of responder rates between the vaccine arm and the by Age, Race and ethnic group

| Group                         | Baseline | Visit  | N   | Endpoint                     | 2-Fold Rise      |
|-------------------------------|----------|--------|-----|------------------------------|------------------|
| Age ≥ 65 Communities of Color | Negative | Day 29 | 253 | Binding Antibody to RBD      | 100.0%           |
|                               |          |        |     | Binding Antibody to Spike    | (100.0%, 100.0%) |
|                               |          | Day 57 | 253 | PsV Neutralization 50% Titer | 100.0%           |
|                               |          |        |     | PsV Neutralization 80% Titer | 57.7%            |
|                               |          |        |     | Binding Antibody to RBD      | (49.0%, 66.5%)   |
|                               | Positive | Day 29 | 148 | Binding Antibody to Spike    | 75.2%            |
|                               |          |        |     | PsV Neutralization 50% Titer | (67.5%, 82.9%)   |
|                               |          | Day 57 | 148 | PsV Neutralization 80% Titer | 100.0%           |
|                               |          |        |     | Binding Antibody to RBD      | (100.0%, 100.0%) |
|                               |          |        |     | Binding Antibody to Spike    | 100.0%           |
| Age ≥ 65 White Non-Hispanic   | Negative | Day 29 | 227 | PsV Neutralization 50% Titer | (100.0%, 100.0%) |
|                               |          |        |     | PsV Neutralization 80% Titer | 94.1%            |
|                               |          | Day 57 | 148 | Binding Antibody to RBD      | (89.9%, 98.3%)   |
|                               |          |        |     | Binding Antibody to Spike    | 97.0%            |
|                               |          |        |     | PsV Neutralization 50% Titer | (93.9%, 100.0%)  |
|                               | Positive | Day 29 | 148 | Binding Antibody to RBD      | 0.0%             |
|                               |          |        |     | Binding Antibody to Spike    | (-0.0%, 0.0%)    |
|                               |          | Day 57 | 148 | PsV Neutralization 50% Titer | 28.2%            |
|                               |          |        |     | PsV Neutralization 80% Titer | (12.8%, 43.7%)   |
|                               |          |        |     | Binding Antibody to RBD      | 11.5%            |
|                               |          |        |     | Binding Antibody to Spike    | (-1.6%, 24.5%)   |
|                               |          |        |     | PsV Neutralization 50% Titer | 0.0%             |
|                               |          |        |     | PsV Neutralization 80% Titer | (-0.0%, 0.0%)    |
|                               |          |        |     | Binding Antibody to RBD      | 0.0%             |
|                               |          |        |     | Binding Antibody to Spike    | (-0.0%, 0.0%)    |
|                               |          |        |     | PsV Neutralization 50% Titer | 10.2%            |
|                               |          |        |     | PsV Neutralization 80% Titer | (0.4%, 20.0%)    |
|                               |          |        |     | Binding Antibody to RBD      | -1.6%            |
|                               |          |        |     | Binding Antibody to Spike    | (-5.4%, 2.1%)    |
|                               |          |        |     | PsV Neutralization 50% Titer | 100.0%           |
|                               |          |        |     | PsV Neutralization 80% Titer | (100.0%, 100.0%) |
|                               |          |        |     | Binding Antibody to RBD      | 100.0%           |
|                               |          |        |     | Binding Antibody to Spike    | (100.0%, 100.0%) |
|                               |          |        |     | PsV Neutralization 50% Titer | 64.6%            |
|                               |          |        |     | PsV Neutralization 80% Titer | (55.6%, 73.7%)   |

Table 2.44: Table 8j. Differences of responder rates between the vaccine arm and the placebo by Age, Race and ethnic group (continued)

| Group                              | Baseline | Visit  | N   | Endpoint                     | 2-Fold Rise                | 4-Fold                     |
|------------------------------------|----------|--------|-----|------------------------------|----------------------------|----------------------------|
|                                    |          |        |     | PsV Neutralization 80% Titer | 78.4%<br>(70.6%, 86.2%)    | 67.4%<br>(58.5%, 76.3%)    |
|                                    | Day 57   | 227    |     | Binding Antibody to RBD      | 100.0%<br>(100.0%, 100.0%) | 100.0%<br>(100.0%, 100.0%) |
|                                    |          |        |     | Binding Antibody to Spike    | 100.0%<br>(100.0%, 100.0%) | 100.0%<br>(100.0%, 100.0%) |
|                                    |          |        |     | PsV Neutralization 50% Titer | 96.6%<br>(93.1%, 100.0%)   | 91.4%<br>(86.1%, 96.7%)    |
|                                    | Positive | Day 29 | 117 | Binding Antibody to RBD      | 0.0%<br>(0.0%, 0.0%)       | 0.7%<br>(-1.4%, -0.7%)     |
|                                    |          |        |     | Binding Antibody to Spike    | 0.0%<br>(0.0%, 0.0%)       | 0.0%<br>(0.0%, 0.0%)       |
|                                    |          |        |     | PsV Neutralization 50% Titer | 25.5%<br>(8.3%, 42.7%)     | 8.3%<br>(-9.8%, 18.1%)     |
|                                    |          |        |     | PsV Neutralization 80% Titer | 3.8%<br>(-11.3%, 18.8%)    | 8.7%<br>(-8.4%, 18.8%)     |
|                                    | Day 57   | 117    |     | Binding Antibody to RBD      | 0.0%<br>(0.0%, 0.0%)       | 0.0%<br>(0.0%, 0.0%)       |
|                                    |          |        |     | Binding Antibody to Spike    | 0.0%<br>(0.0%, 0.0%)       | 0.0%<br>(0.0%, 0.0%)       |
|                                    |          |        |     | PsV Neutralization 50% Titer | 18.0%<br>(7.7%, 28.3%)     | 21.2%<br>(8.8%, 28.3%)     |
|                                    |          |        |     | PsV Neutralization 80% Titer | 2.7%<br>(-2.5%, 7.9%)      | 0.5%<br>(-6.6%, 8.4%)      |
| Age $\geq$ 65 Communities of Color | Negative | Day 29 | 282 | Binding Antibody to RBD      | 100.0%                     | 100.0%                     |
|                                    |          |        |     | Binding Antibody to Spike    | (100.0%, 100.0%)           | (100.0%, 100.0%)           |
|                                    |          |        |     | PsV Neutralization 50% Titer | 100.0%<br>(100.0%, 100.0%) | 100.0%<br>(100.0%, 100.0%) |
|                                    |          |        |     | PsV Neutralization 80% Titer | 81.7%<br>(75.3%, 88.1%)    | 71.2%<br>(63.7%, 79.7%)    |
|                                    | Day 57   | 282    |     | Binding Antibody to RBD      | 92.9%<br>(88.7%, 97.2%)    | 80.5%<br>(73.9%, 87.5%)    |
|                                    |          |        |     | Binding Antibody to Spike    | 100.0%<br>(100.0%, 100.0%) | 100.0%<br>(100.0%, 100.0%) |

Table 2.44: Table 8j. Differences of responder rates between the vaccine arm and the by Age, Race and ethnic group (continued)

| Group                           | Baseline | Visit  | N   | Endpoint                     | 2-Fold Rise      |
|---------------------------------|----------|--------|-----|------------------------------|------------------|
|                                 |          |        |     |                              | (100.0%, 100.0%) |
|                                 |          |        |     | PsV Neutralization 50% Titer | 97.1%            |
|                                 |          |        |     |                              | (94.3%, 99.9%)   |
|                                 |          |        |     | PsV Neutralization 80% Titer | 97.9%            |
|                                 |          |        |     |                              | (95.6%, 100.3%)  |
|                                 | Positive | Day 29 | 113 | Binding Antibody to RBD      | -0.0%            |
|                                 |          |        |     |                              | (-0.0%, 0.0%)    |
|                                 |          |        |     | Binding Antibody to Spike    | -0.0%            |
|                                 |          |        |     |                              | (-0.0%, 0.0%)    |
|                                 |          |        |     | PsV Neutralization 50% Titer | 17.6%            |
|                                 |          |        |     |                              | (5.4%, 29.9%)    |
|                                 |          |        |     | PsV Neutralization 80% Titer | 6.1%             |
|                                 |          |        |     |                              | (-1.8%, 14.0%)   |
|                                 |          | Day 57 | 113 | Binding Antibody to RBD      | -0.0%            |
|                                 |          |        |     |                              | (-0.0%, 0.0%)    |
|                                 |          |        |     | Binding Antibody to Spike    | -0.0%            |
|                                 |          |        |     |                              | (-0.0%, 0.0%)    |
|                                 |          |        |     | PsV Neutralization 50% Titer | -1.0%            |
|                                 |          |        |     |                              | (-5.2%, 3.2%)    |
|                                 |          |        |     | PsV Neutralization 80% Titer | 2.6%             |
|                                 |          |        |     |                              | (-1.6%, 6.8%)    |
| Age $i = 65$ White Non-Hispanic | Negative | Day 29 | 229 | Binding Antibody to RBD      | 100.0%           |
|                                 |          |        |     |                              | (100.0%, 100.0%) |
|                                 |          |        |     | Binding Antibody to Spike    | 100.0%           |
|                                 |          |        |     |                              | (100.0%, 100.0%) |
|                                 |          |        |     | PsV Neutralization 50% Titer | 85.7%            |
|                                 |          |        |     |                              | (79.0%, 92.3%)   |
|                                 |          |        |     | PsV Neutralization 80% Titer | 89.8%            |
|                                 |          |        |     |                              | (84.1%, 95.5%)   |
|                                 |          | Day 57 | 229 | Binding Antibody to RBD      | 100.0%           |
|                                 |          |        |     |                              | (100.0%, 100.0%) |
|                                 |          |        |     | Binding Antibody to Spike    | 100.0%           |
|                                 |          |        |     |                              | (100.0%, 100.0%) |
|                                 |          |        |     | PsV Neutralization 50% Titer | 96.4%            |
|                                 |          |        |     |                              | (92.9%, 99.9%)   |
|                                 |          |        |     | PsV Neutralization 80% Titer | 100.0%           |
|                                 |          |        |     |                              | (100.0%, 100.0%) |
|                                 | Positive | Day 29 | 107 | Binding Antibody to RBD      | -0.0%            |

Table 2.44: Table 8j. Differences of responder rates between the vaccine arm and the placebo by Age, Race and ethnic group (continued)

| Group  | Baseline | Visit | N | Endpoint                     | 2-Fold Rise                              | 4-Fold                    |
|--------|----------|-------|---|------------------------------|--|---------------------------|
|        |          |       |   | Binding Antibody to Spike    | (-0.0%, -0.0%)<br>-0.0%                  | (-0.0%<br>-0.0%)          |
|        |          |       |   | PsV Neutralization 50% Titer | (-0.0%, -0.0%)<br>15.0%<br>(0.0%, 29.9%) | (-0.0%<br>20.3%<br>(2.3%, |
|        |          |       |   | PsV Neutralization 80% Titer | 20.1%<br>(7.0%, 33.2%)                   | 24.4%<br>(9.6%,           |
| Day 57 | 107      |       |   | Binding Antibody to RBD      | -0.0%<br>(-0.0%, -0.0%)                  | -0.0%<br>(-0.0%)          |
|        |          |       |   | Binding Antibody to Spike    | -0.0%<br>(-0.0%, -0.0%)                  | -0.0%<br>(-0.0%)          |
|        |          |       |   | PsV Neutralization 50% Titer | 2.1%<br>(-4.2%, 8.4%)                    | 2.5%<br>(-7.0%)           |
|        |          |       |   | PsV Neutralization 80% Titer | 2.0%<br>(-1.7%, 5.6%)                    | 5.9%<br>(-0.3%)           |

All calculations were weighted by the inverse probability sampling (IPS), defined based on the subcohort sampling strata.