# Verification Report for Super Learner Risk Score Calculations

June 04, 2021

#### Result

The verification succeeded.

## CV-AUC of super learner

Figure 1.1 compares the CV-AUC of each prediction algorithm as well as the super learner and discrete super learner. The high risk result in this table is the CV-AUC of the super learner, which is the algorithm that the SAP specifies will be advanced to the analysis for the risk score. The other reported CV-AUCs in this table are deemed to be low risk, since their purpose in the analysis is merely descriptive. This test passes if the point estimate and confidence interval limits of the tester and programmers results are within  $10^{-4}$ . Agreement within this level of tolerance was judged to have minimal impact on downstream analyses.

Below is the comparison of the programmer and tester's results for the point estimate and 95% confidence interval for CV-AUC.

	CV-AUC	95% CI	95% CI
Programmer	0.719065	0.703092	0.735038
Tester	0.719065	0.703091	0.735039

This test passed.

#### Risk scores

The primary output of the baseline risk score analysis is the risk scores themselves. This test passes if the assigned risk scores for the vaccinated individuals as computed by the tester and programmer are all within  $10^{-4}$  units of one another.

This test passed.

## Signatures

Role	Name	Signature	Date
Manager	Dr. Peter Gilbert		
Specifier/Programmer	Bhavesh Borate		
Tester	Dr. David Benkeser		