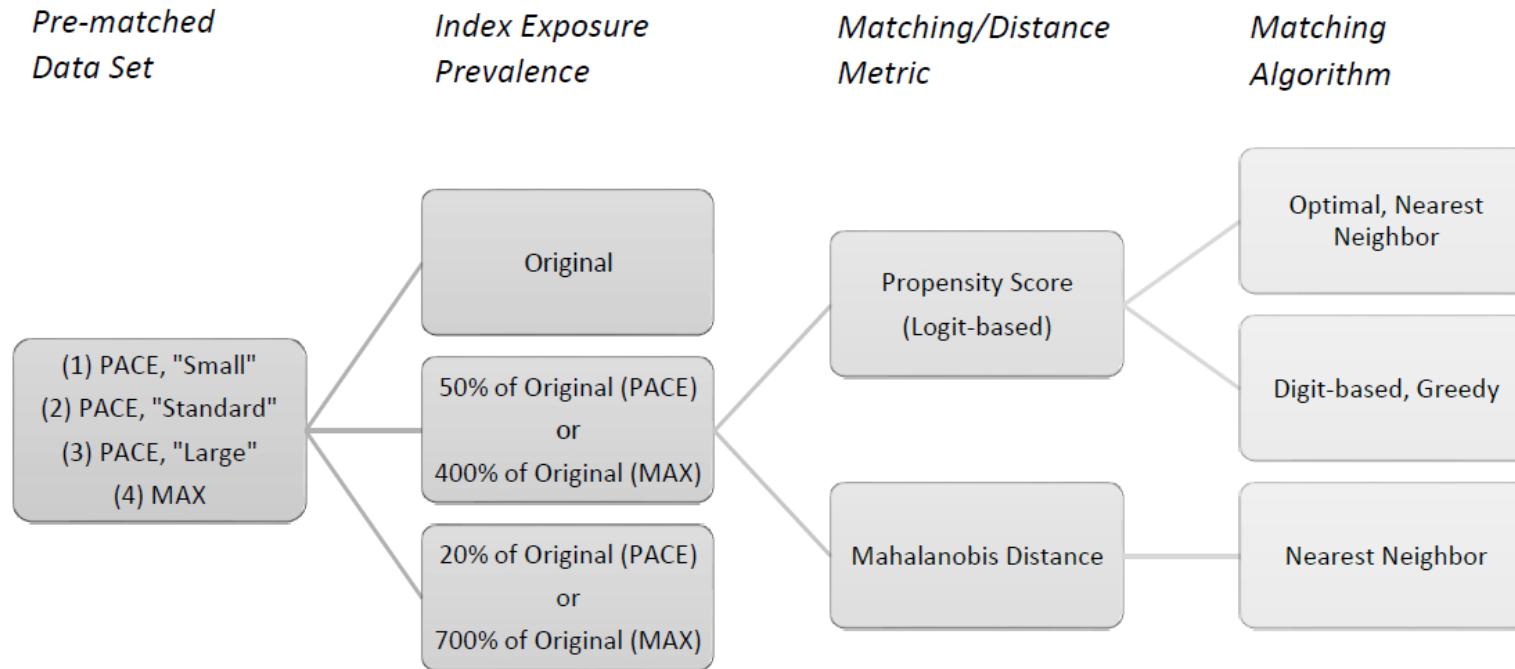
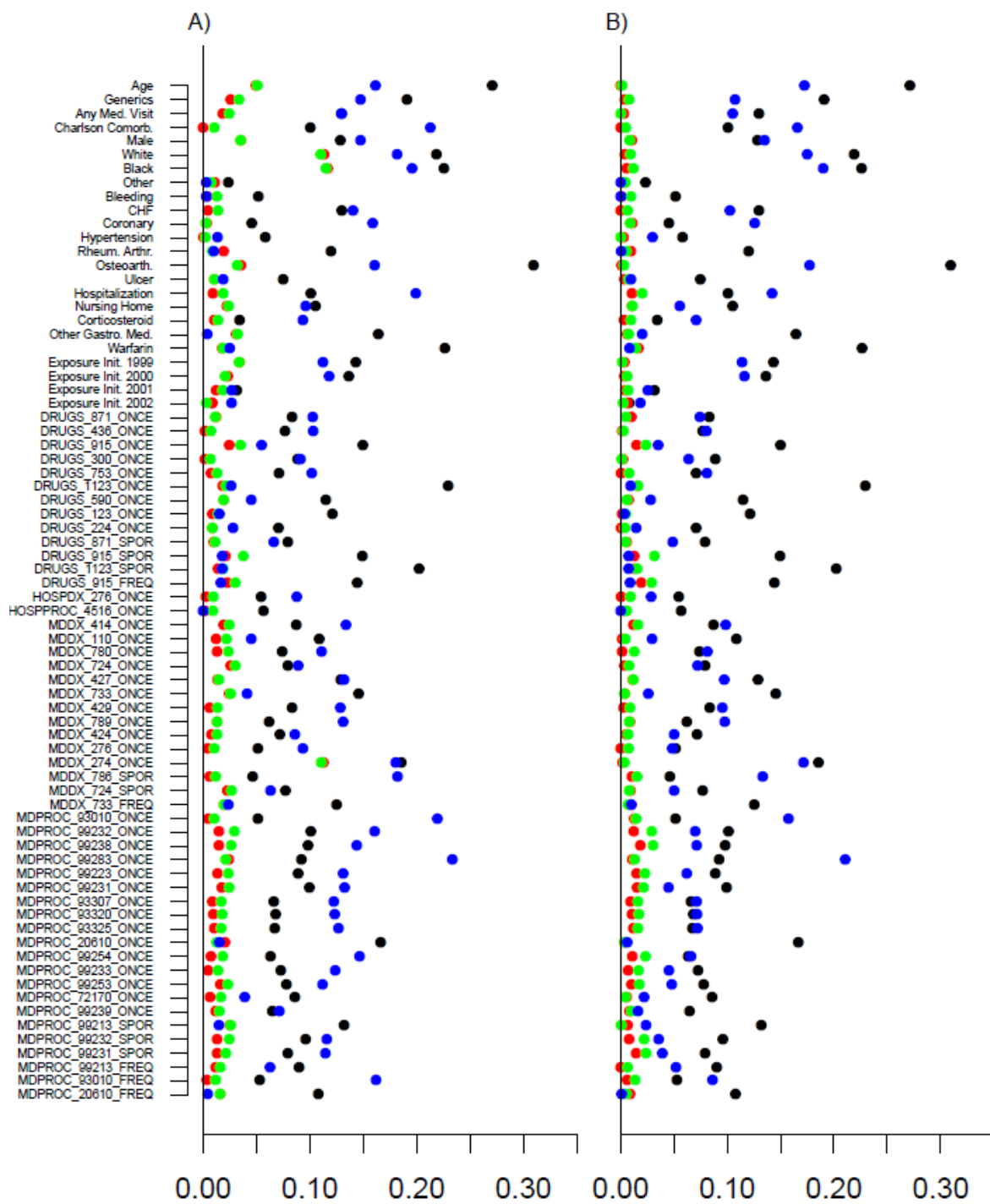


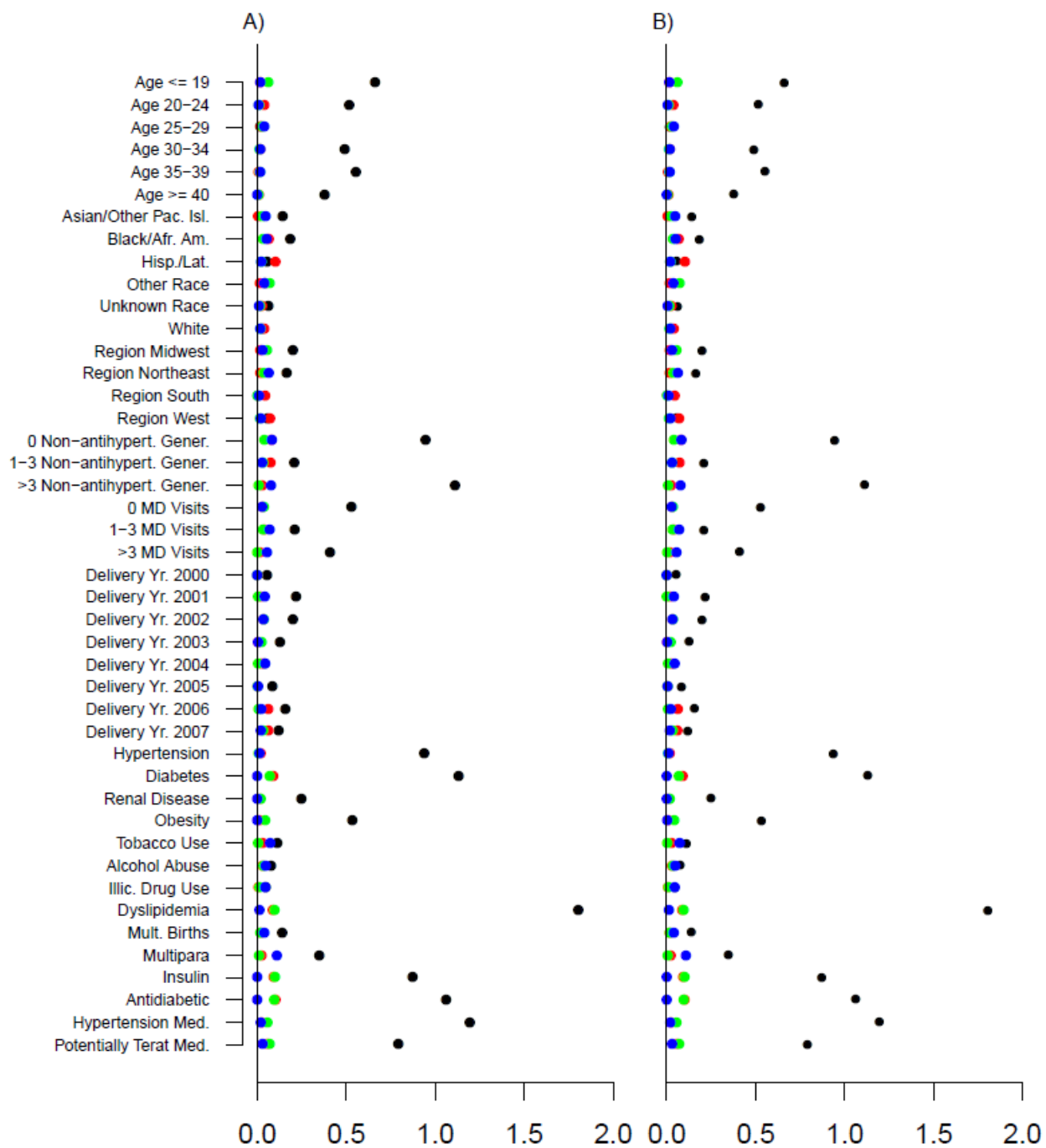
**WEB FIGURE 1.** Design Flowchart for the 36 Dataset Scenarios. The *Matching/Distance Metric* and *Matching Algorithm* branches apply to each of the *Index Exposure Prevalence* branches. The former branches were collapsed for the sake of efficiency.



**WEB FIGURE 2.** Forest Plots of Standardized Differences Among All Covariates for the PACE, Standard Covariate Set, Original Index Exposure Prevalence Dataset. A) Fully-matched datasets. B) Matched datasets pruned to the sample size of the pruned dataset that first met the propensity score nearest neighbor matching 0.025 absolute propensity score distance caliper. The black, red, green and blue markers correspond to the covariates from the original/pre-matched dataset, from the propensity score nearest neighbor-matched dataset, from the propensity score digit-based greedy-matched dataset and from the Mahalanobis distance-matched dataset, respectively.

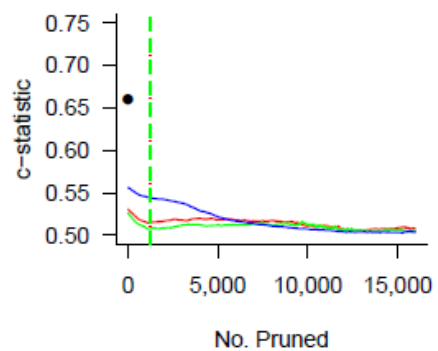


**WEB FIGURE 3.** Forest Plots of Standardized Differences Among All Covariates for the MAX, Original Index Exposure Prevalence Dataset. A) Fully-matched datasets. B) Matched datasets pruned to the sample size of the pruned dataset that first met the propensity score nearest neighbor matching 0.025 absolute propensity score distance caliper. The black, red, green and blue markers correspond to the covariates from the original/pre-matched dataset, from the propensity score nearest neighbor-matched dataset, from the propensity score digit-based greedy-matched dataset and from the Mahalanobis distance-matched dataset, respectively.

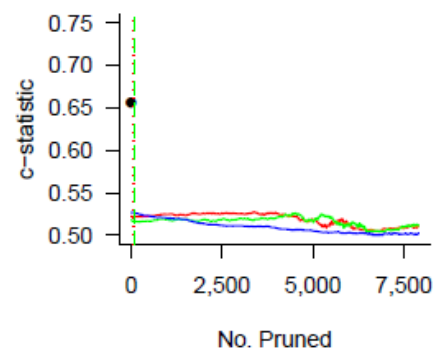


**WEB FIGURE 4.** C-statistic Metric Trends for the 9 PACE Datasets. A) Small covariate set, original index exposure prevalence (IEP). B) Small covariate set, 50% of IEP. C) Small covariate set, 20% of IEP. D) Standard covariate set, IEP. E) Standard covariate set, 50% of IEP. F) Standard covariate set, 20% of IEP. G) Large covariate set, IEP. H) Large covariate set, 50% of IEP. I) Large covariate set, 20% of IEP. The black dots indicate the c-statistic values of the pre-matched datasets. Red lines indicate propensity score nearest neighbor matching trends, green lines indicate propensity score digit-based greedy matching trends and blue lines indicate Mahalanobis distance matching trends. The dotted and dashed vertical lines (for propensity score nearest neighbor matching and propensity score digit-based greedy matching, respectively) mark the 6 points at which the propensity score matching trends first met the 0.05, 0.025 and 0.01 absolute propensity score distance caliper criteria (vertical line colors correspond to trend colors). The caliper criteria always were met in the order 0.05, 0.025, 0.01 during the pruning process.

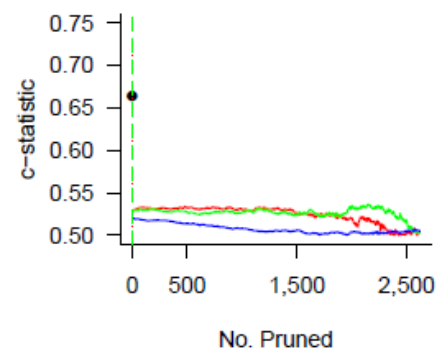
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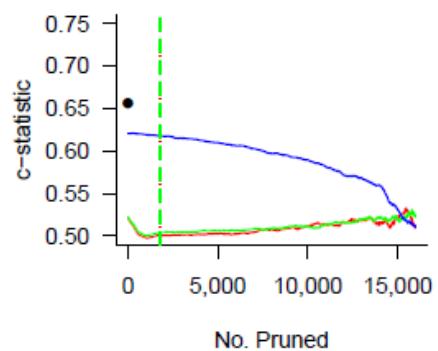
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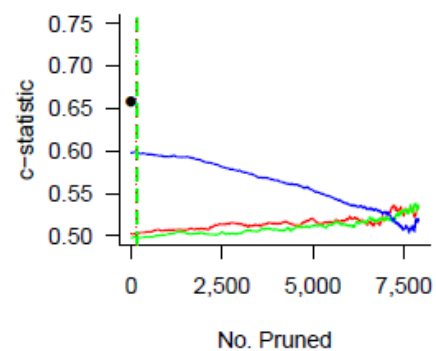
C)



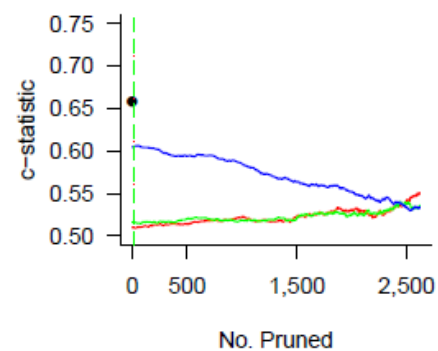
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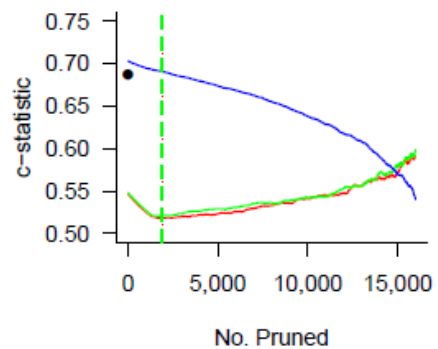
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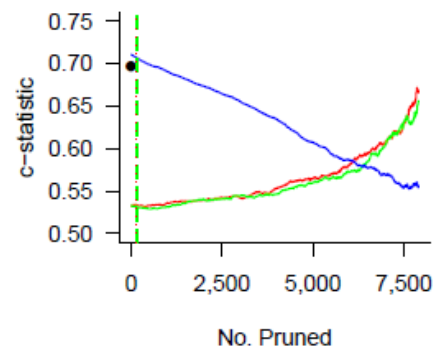
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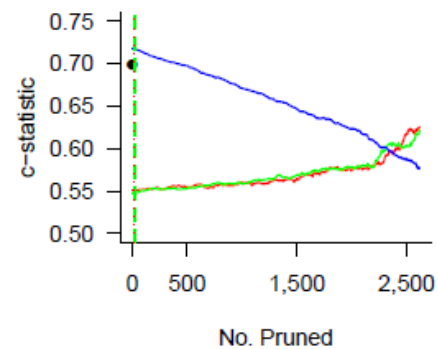
G)



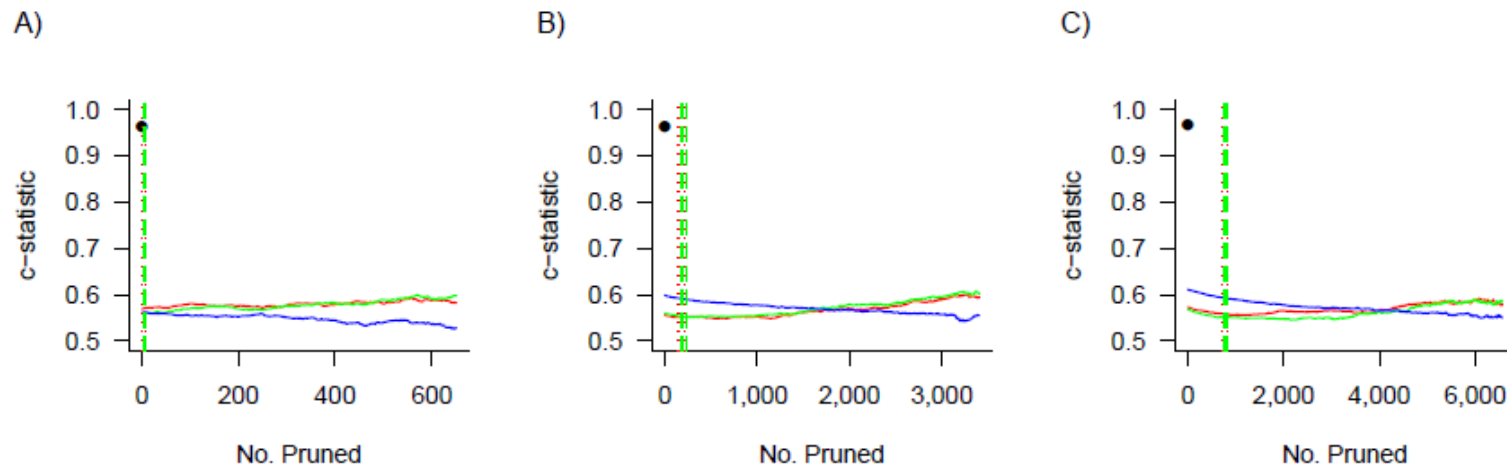
H)



I)



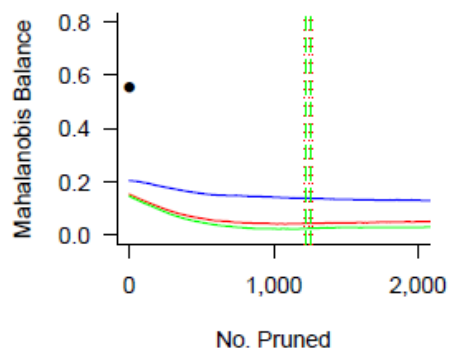
**WEB FIGURE 5.** C-statistic Metric Trends for the 3 MAX Datasets. A) Original index exposure prevalence (IEP). B) 400% of IEP. C) 700% of IEP. The black dots indicate the c-statistic values of the pre-matched datasets. Red lines indicate propensity score nearest neighbor matching trends, green lines indicate propensity score digit-based greedy matching trends and blue lines indicate Mahalanobis distance matching trends. The dotted and dashed vertical lines (for propensity score nearest neighbor matching and propensity score digit-based greedy matching, respectively) mark the 6 points at which the propensity score matching trends first met the 0.05, 0.025 and 0.01 absolute propensity score distance caliper criteria (vertical line colors correspond to trend colors). The caliper criteria always were met in the order 0.05, 0.025, 0.01 during the pruning process.



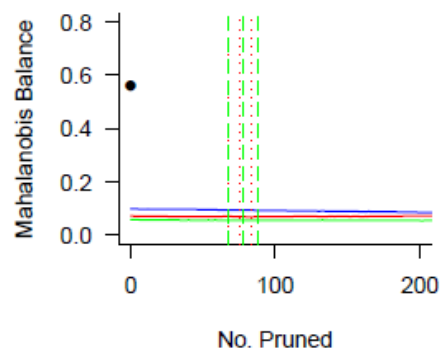


**WEB FIGURE 6.** Zoomed-in Version of Figure 1. A) Small covariate set, original index exposure prevalence (IEP). B) Small covariate set, 50% of IEP. C) Small covariate set, 20% of IEP. D) Standard covariate set, IEP. E) Standard covariate set, 50% of IEP. F) Standard covariate set, 20% of IEP. G) Large covariate set, IEP. H) Large covariate set, 50% of IEP. I) Large covariate set, 20% of IEP. The ranges of the “No. Pruned” axes in these panels are much smaller than the ranges of the corresponding panels in Figure 1. The black dots indicate the Mahalanobis balance values of the pre-matched datasets. Red lines indicate propensity score nearest neighbor matching trends, green lines indicate propensity score digit-based greedy matching trends and blue lines indicate Mahalanobis distance matching trends. The dotted and dashed vertical lines (for propensity score nearest neighbor matching and propensity score digit-based greedy matching, respectively) mark the 6 points at which the propensity score matching trends first met the 0.05, 0.025 and 0.01 absolute propensity score distance caliper criteria (vertical line colors correspond to trend colors). The caliper criteria always were met in the order 0.05, 0.025, 0.01 during the pruning process.

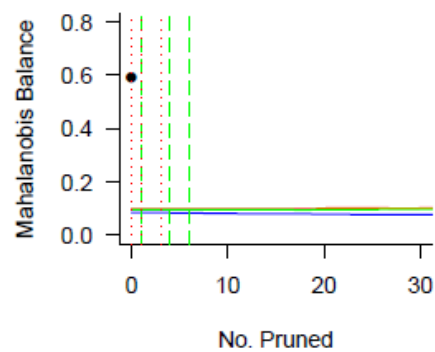
A)



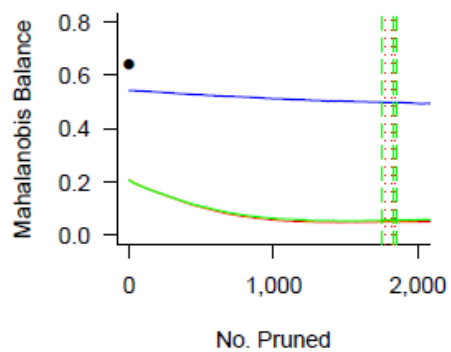
B)



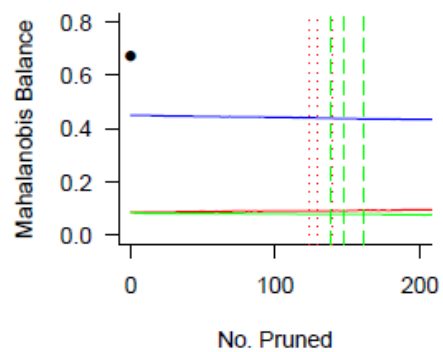
C)



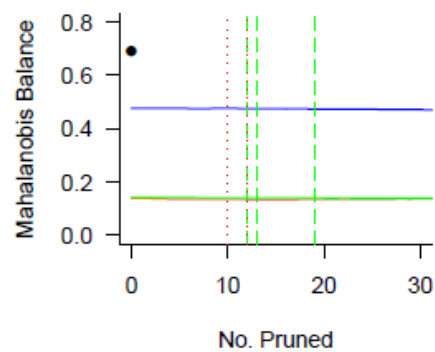
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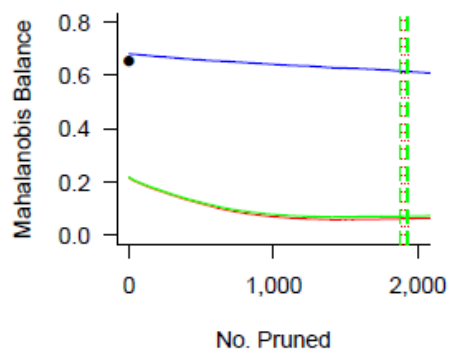
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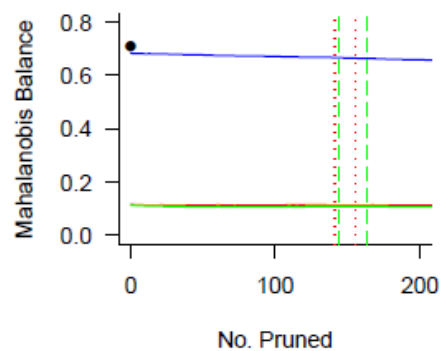
F)



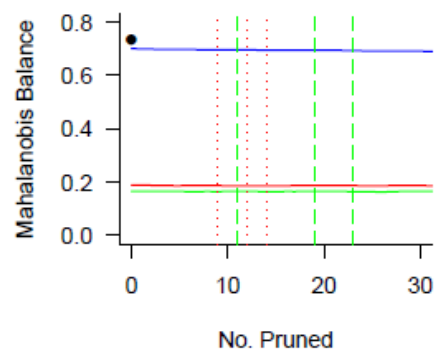
G)



H)



I)



**WEB FIGURE 7.** Zoomed-in Version of Figure 2. A) Original index exposure prevalence (IEP). B) 400% of IEP. C) 700% of IEP. The ranges of the “No. Pruned” axes in these panels are much smaller than the ranges of the corresponding panels in Figure 2. The black dots indicate the Mahalanobis balance values of the pre-matched datasets. Red lines indicate propensity score nearest neighbor matching trends, green lines indicate propensity score digit-based greedy matching trends and blue lines indicate Mahalanobis distance matching trends. The dotted and dashed vertical lines (for propensity score nearest neighbor matching and propensity score digit-based greedy matching, respectively) mark the 6 points at which the propensity score matching trends first met the 0.05, 0.025 and 0.01 absolute propensity score distance caliper criteria (vertical line colors correspond to trend colors). The caliper criteria always were met in the order 0.05, 0.025, 0.01 during the pruning process.

