

## Best subsets ideal model - w interaction term

## The LOGISTIC Procedure

## Model Information

Data Set	WORK.TIMESINCEVAX	
Response Variable	breakthrough	breakthrough
Number of Response Levels	2	
Model	binary logit	
Optimization Technique	Fisher's scoring	

Number of Observations Read	3084648
Number of Observations Used	3084648

## Response Profile

Ordered Value	breakthrough	Total Frequency
1	1	29677
2	0	3054971

Probability modeled is breakthrough=1.

## Model Convergence Status

Convergence criterion (GCONV=1E-8) satisfied.

## Model Fit Statistics

Criterion	Intercept Only	Intercept and Covariates
AIC	334698.88	6777.410
SC	334711.82	6829.178

-2 Log L            334696.88            6769.410

Testing Global Null Hypothesis: BETA=0

Test	Chi-Square	DF	Pr > ChiSq
Likelihood Ratio	327927.473	3	<.0001
Score	1684101.70	3	<.0001
Wald	2449.0487	3	<.0001

Analysis of Maximum Likelihood Estimates

Parameter	DF	Estimate	Standard Error	Wald Chi-Square	Pr > ChiSq
Intercept	1	-20.2299	0.9437	459.5197	<.0001
followup_time	1	-6.3642	0.1295	2413.4153	<.0001
time_since_vax	1	201.5	4.0771	2443.3263	<.0001
followup_*time_since	1	-0.0320	0.00124	665.6590	<.0001

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## Association of Predicted Probabilities and Observed Responses

Percent Concordant	99.7	Somers' D	0.993
Percent Discordant	0.3	Gamma	0.993
Percent Tied	0.0	Tau-a	0.019
Pairs	90662374367	c	0.997

## Odds Ratio Estimates and Wald Confidence Intervals

Odds Ratio	Estimate	95% Confidence Limits	
followup_time at time_since_vax=5.3634	0.001	0.001	0.002
time_since_vax at followup_time=163.28	>999.999	>999.999	>999.999