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### Competing model (best w age) - 2 interaction terms

#### 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

Total		Ordered
Frequency	breakthrough	Value
	-	
29677	1	1
3054971	0	2

Probability modeled is breakthrough=1.

### Model Convergence Status

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

#### Model Fit Statistics

		Intercept
	Intercept	and
Criterion	Only	Covariates
AIC	334698.88	6617.617
SC	334711.82	6708.211

-2 Log L 334696.88 6603.617

Testing Global Null Hypothesis: BETA=0

Test	Chi-Square	DF	Pr > ChiSq
Likelihood Ratio	328093.266	6	<.0001
Score	1685306.46	6	<.0001
Wald	2408.9968	6	<.0001

# Analysis of Maximum Likelihood Estimates

			Standard	Wald	
Parameter	DF	Estimate	Error	Chi-Square	Pr > ChiSq
Intercept	1	-24.8910	1.1322	483.3162	<.0001
followup_time	1	-6.4441	0.1332	2340.3215	<.0001
time_since_vax	1	204.6	4.2180	2352.9714	<.0001
age	1	0.1331	0.0182	53.5719	<.0001
age*age	1	-0.00064	0.000168	14.5041	0.0001
followup_*time_since	1	-0.0317	0.00125	642.0941	<.0001

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# The LOGISTIC Procedure

# Analysis of Maximum Likelihood Estimates

			Standard	Wald	
Parameter	DF	Estimate	Error	Chi-Square	Pr > ChiSq
time since vax*age	1	-0.0140	0.00190	54.4806	<.0001

## Association of Predicted Probabilities and Observed Responses

Percent	Concordant	99.7	Somers	D	0.993
Percent	Discordant	0.3	Gamma		0.994
Percent	Tied	0.0	Tau-a		0.019
Pairs		90662374367	С		0.997