VARS
time: categorical, linear quarters for FY, where 1 = 01JUL2019
int: intervention of ISP if practice participated at any time (0,1)
int_imp: time-varying covariate, ISP intervention based on month practice started
ind_cost_pc: indicator variable if value of 0 or ge 1 for any DV
cost_pc_tc: mean-preserving top coded inflation adjusted total Primary Care cost - PMPM avg for quarter

The CONTENTS Procedure

Data Set Name	DATA.ANALYSIS_DATASET	**Observations**	14346977
Member Type	DATA	**Variables**	37
Engine	V9	**Indexes**	0
Created	03/29/2023 12:11:32	**Observation Length**	296
Last Modified	03/29/2023 12:11:32	**Deleted Observations**	0
Protection		**Compressed**	NO
Data Set Type		**Sorted**	YES
Label			
Data Representation	WINDOWS_64		
Encoding	wlatin1 Western (Windows)		

Engine/Host Dependent Information	
Data Set Page Size	65536
Number of Data Set Pages	64919
First Data Page	1
Max Obs per Page	221
Obs in First Data Page	204
Number of Data Set Repairs	0
ExtendObsCounter	YES
Filename	S:\FHPC\DATA\HCPF_Data_files_SECURE\Kim\isp\isp_utilization\data\analysis_dataset.sas7bdat
Release Created	9.0401M7
Host Created	X64_10PRO
Owner Name	UNIVERSITY\wigginki
File Size	4GB
File Size (bytes)	4254597120

Alphabetic List of Variables and Attributes						
#	Variable	Type	Len	Format	Informat	Label
11	adj_pd_total_16cat	Char	2			
12	adj_pd_total_17cat	Char	2			
13	adj_pd_total_18cat	Char	2			
2	age	Num	8	AGE_CAT_.		Age (category)
14	bh_er2016	Num	8			BH ER visits 2016: Binary
15	bh_er2017	Num	8			BH ER visits 2017: Binary

The CONTENTS Procedure

#	Variable	Type	Len	Format	Informat	Label
				Alphabetic List of Variables and Attributes		
16	bh_er2018	Num	8			BH ER visits 2018: Binary
17	bh_hosp2016	Num	8			
18	bh_hosp2017	Num	8			
19	bh_hosp2018	Num	8			
20	bh_oth2016	Num	8			
21	bh_oth2017	Num	8			
22	bh_oth2018	Num	8			
6	budget_grp_new	Char	22			
24	cost_ffs_tc	Num	8			Cost FFS total: top-coded infl-adj qrtr avg
25	cost_pc_tc	Num	8			Cost FFS Primary Care: top-coded infl-adj qrtr avg
23	cost_rx_tc	Num	8			Cost FFS Rx: top-coded infl-adj qrtr avg
37	fqhc	Num	8			
31	ind_cost_ffs	Num	8			
32	ind_cost_pc	Num	8			
30	ind_cost_rx	Num	8			
35	ind_util_bh_o	Num	8			
34	ind_util_er	Num	8			
33	ind_util_pc	Num	8			
36	ind_util_tel	Num	8			
9	int	Num	8			ISP: Time-Invariant
10	int_imp	Num	8			ISP: Time-Varying
1	mcaid_id	Char	11	$255.	$255.	MCAID_ID
8	pcmp_loc_id	Num	8			
4	race	Char	7	$RACE_RC_.	$255.	RACE_CD
5	rae_person_new	Num	8	BEST12.	BEST32.	
3	sex	Char	3	$GNDR_CD.	$255.	GNDR_CD
7	time	Num	8			Quarter, FY19-21
29	util_bh_o	Num	8			Visits: BH Other
28	util_er	Num	8			Visits: ER
26	util_pc	Num	8			Visits: PC
27	util_tele	Num	8			Visits: Tele

The CONTENTS Procedure

Sort Information	
Sortedby	mcaid_id time
Validated	YES
Character Set	ANSI

The GEE Procedure

Model Information	
Data Set	DATA.ANALYSIS_DATASET
Distribution	Binomial
Link Function	Logit
Dependent Variable	ind_cost_pc

Number of Observations Read	14346977
Number of Observations Used	14346977
Number of Events	5181347
Number of Trials	14346977

Class Level Information		
Class	**Levels**	**Values**
mcaid_id	1594066	REMOVED (KW).
int	2	0 1
int_imp	2	0 1
time	12	1 2 3 4 5 6 7 8 9 10 11 12

Response Profile		
Ordered Value	**ind_cost_pc**	**Total Frequency**
1	1	5181347
2	0	9165630

PROC GEE is modeling the probability that ind_cost_pc='1'.

GEE Model Information	
Correlation Structure	Exchangeable
Subject Effect	mcaid_id (1594066 levels)
Number of Clusters	1594066
Clusters With Missing Values	1594056
Correlation Matrix Dimension	20
Maximum Cluster Size	20
Minimum Cluster Size	1

Exchangeable Working Correlation	
Correlation	0.3268

The GEE Procedure

GEE Fit Criteria	
QIC	18738358.118
QICu	18738354.236

Parameter Estimates for Response Model							
with Empirical Standard Error Estimates							
Parameter		Estimate	Standard Error	95% Confidence Limits		Z	Pr > |Z|
Intercept		-0.6587	0.0032	-0.6650	-0.6524	-204.54	<.0001
int	0	-0.0365	0.0037	-0.0438	-0.0291	-9.74	<.0001
int	1	0.0000	0.0000	0.0000	0.0000	.	.
int_imp	0	-0.0009	0.0036	-0.0081	0.0062	-0.26	0.7944
int_imp	1	0.0000	0.0000	0.0000	0.0000	.	.
time	1	0.2732	0.0025	0.2684	0.2781	110.16	<.0001
time	2	0.2980	0.0025	0.2932	0.3028	121.55	<.0001
time	3	0.2507	0.0024	0.2459	0.2554	103.95	<.0001
time	4	-0.1387	0.0025	-0.1435	-0.1338	-56.36	<.0001
time	5	0.1182	0.0024	0.1136	0.1228	50.09	<.0001
time	6	0.1285	0.0023	0.1240	0.1330	55.79	<.0001
time	7	0.0312	0.0023	0.0267	0.0356	13.76	<.0001
time	8	0.0341	0.0022	0.0298	0.0384	15.46	<.0001
time	9	0.1194	0.0022	0.1151	0.1237	54.60	<.0001
time	10	0.1056	0.0021	0.1015	0.1098	49.87	<.0001
time	11	0.0395	0.0020	0.0355	0.0435	19.33	<.0001
time	12	0.0000	0.0000	0.0000	0.0000	.	.

The GEE Procedure

Model Information			
Data Set	DATA.ANALYSIS_DATASET		Cost FFS Primary Care: top-coded infl-adj qrtr avg
Distribution	Gamma		
Link Function	Log		
Dependent Variable	cost_pc_tc		

Number of Observations Read	5181347
Number of Observations Used	5181347

Class Level Information		
Class	Levels	Values
mcaid_id	1153186	
int	2	0 1
int_imp	2	0 1
time	12	1 2 3 4 5 6 7 8 9 10 11 12
ind_cost_pc	1	1

GEE Model Information	
Correlation Structure	Exchangeable
Subject Effect	mcaid_id (1153186 levels)
Number of Clusters	1153186
Clusters With Missing Values	1153181
Correlation Matrix Dimension	19
Maximum Cluster Size	19
Minimum Cluster Size	1

Exchangeable Working Correlation	
Correlation	0.4059

GEE Fit Criteria	
QIC	58570618.164
QICu	58570617.261

The GEE Procedure

Parameter Estimates for Response Model							
with Empirical Standard Error Estimates							
Parameter		Estimate	Standard Error	95% Confidence Limits		Z	Pr > |Z|
Intercept		4.4880	0.0024	4.4833	4.4927	1870.16	<.0001
int	0	0.0677	0.0027	0.0624	0.0730	24.96	<.0001
int	1	0.0000	0.0000	0.0000	0.0000	.	.
int_imp	0	-0.0334	0.0028	-0.0389	-0.0278	-11.74	<.0001
int_imp	1	0.0000	0.0000	0.0000	0.0000	.	.
time	1	0.0221	0.0020	0.0181	0.0260	10.99	<.0001
time	2	0.0094	0.0020	0.0055	0.0133	4.69	<.0001
time	3	0.0567	0.0020	0.0529	0.0606	28.87	<.0001
time	4	-0.0070	0.0021	-0.0112	-0.0028	-3.28	0.0010
time	5	0.0153	0.0020	0.0114	0.0192	7.71	<.0001
time	6	-0.0262	0.0020	-0.0301	-0.0223	-13.24	<.0001
time	7	0.0136	0.0020	0.0098	0.0174	6.96	<.0001
time	8	-0.0093	0.0019	-0.0130	-0.0055	-4.82	<.0001
time	9	-0.0071	0.0019	-0.0108	-0.0035	-3.84	0.0001
time	10	-0.0136	0.0018	-0.0171	-0.0100	-7.43	<.0001
time	11	0.0075	0.0018	0.0041	0.0110	4.29	<.0001
time	12	0.0000	0.0000	0.0000	0.0000	.	.

The PLM Procedure

Store Information	
Item Store	WORK.P_MODEL
Data Set Created From	DATA.ANALYSIS_DATASET
Created By	PROC GEE
Date Created	30MAR23:15:44:49
Response Variable	ind_cost_pc
Link Function	Logit
Distribution	Binary
Class Variables	mcaid_id int int_imp time ind_cost_pc
Model Effects	Intercept int int_imp time

The PLM Procedure

Store Information	
Item Store	WORK.C_MODEL
Data Set Created From	DATA.ANALYSIS_DATASET
Created By	PROC GEE
Date Created	30MAR23:15:48:49
Response Variable	cost_pc_tc
Link Function	Log
Distribution	Gamma
Class Variables	mcaid_id int int_imp time ind_cost_pc
Model Effects	Intercept int int_imp time

Obs	cost_exposed	cost_unexposed	cost_diff
1	32.1539	33.6132	-1.45931