

David E. Turner, FSA

3000-F Danville Blvd., #156, Alamo CA 94507 Phone/fax toll-free: (877) 496-1782 <u>dturner@tcbenefits.com</u> www.tcbenefits.com

July 27, 2021

Ms. Katie Torres Santa Barbara County 1226 Anacapa St. Santa Barbara, CA 93101

# **RE:** Actuarial Report - Dental IBNR and Claim Fluctuation Margin

Dear Katie:

This letter will recommend appropriate levels of reserves for the Santa Barbara County self-funded dental program for both Incurred But Not Reported (IBNR) and claims fluctuation margin based on actuarial analysis.

#### Background

The County participates in a self-funded EIA-sponsored pool, with the County's claims, rates, and reserves established independently from the pool.

## Analysis of Reserves for IBNR Claims

Reserves for IBNR claims reflect the liability for claims incurred but not yet paid due to normal billing, submission, and processing delays. In the event of self-funded plan termination, this IBNR liability would be funded by the plan and would be covered by funds set aside during pre-termination operations. Normally, this reserve is less than 1 month of average actual dental claims and administrative expenses, depending on the TPA's processing patterns. Estimated reserves for IBNR claims for the Santa Barbara County Dental Program are as follows:

	IBNR	% of Paid Claims
As of 6/30/21	\$158,120	6.9%

Our analysis uses completion factor methodology. This approach applies completion factors (the estimated percentage of claims incurred and paid after 1 month, 2 months, 3 months, etc.), developed over the most recent 6 months of data, to claim lag data to calculate estimated incurred claims for each month during the prior year. This is a standard actuarial methodology that is well known throughout the health and welfare industry.

The IBNR has declined slightly compared to last year's IBNR estimate of \$167,509 and 7.5% of claims. Actual runout for the prior 12-month period through 6/30/20 was \$103,993.

Page 2

## **Claim Fluctuation Margin**

Claim fluctuation margin is an optional but highly recommended reserve that enables self-funded plans to manage unfavorable claim years through the use of funds set aside for random claim fluctuation. The amount of this reserve is usually defined by a confidence level such as 70%, 80%, 90%, etc. that quantifies the probability that claims will not exceed premium plus the specified margin in any given year. Most groups strive to fund this reserve to a 95% confidence level within 3-5 years following the commencement of operations.

The methodology used for this analysis is normally the simulation of multiple years of random claim experience. The approach defines the estimated claim level that will produce the confidence levels described above. When a group is large enough to be fully credible, its historic claim volatility is a more reasonable predictor of its future results. This is especially important if the actual volatility is higher than the simulated results.

	Confidence Level										
Self-Funded Dental	70%	80%	90%	95%	Other						
Margin (% of claims)	6.0%	9.0%	12.0%	15.0%	20.0%						
Amount	\$138,198	\$207,297	\$276,396	\$345,495	\$460,659						

Claim Fluctuation Margin recommendations are as follows:

The above chart shows confidence levels from 70%-95%. It also shows a slightly higher funding option that would help the plan to remain fully funded in the event of headcount growth, consecutive years of unfavorable claims, etc.

Page 3

#### **Program Financials**

The following table shows the funding status for the various different options:

		Confidence Level									
Self-Funded Dental	70%	95%	EIA CFM%								
Total Assets 6/30/21			\$2,166,637								
IBNR	\$158,120										
CFM	\$138,198 \$207,297 \$276,396 \$345,495 \$4										
Total IBNR/CFM	\$296,317	\$364,416	\$434,515	\$503,614	\$618,779						
Surplus/Deficit	\$1,870,320	\$1,801,221	\$1,732,122	\$1,663,023	\$1,547,858						

The County maintains cash and investments sufficient to fund both IBNR and Margin. A surplus position provides the maximum flexibility in rates setting, reserving, etc.

#### Recommendations

Our recommendations are to:

- Establish and fund IBNR reserves as shown above
- Establish a fund a 95% + Confidence Level Claim Fluctuation Margin Reserve as shown above.

We look forward to discussing this information with you.

Sincerely,

Davíd E. Turner

David E. Turner, FSA Manager TURNER CONSULTING AND ACTUARIAL, LLC

# **COUNTY OF SANTA BARBARA**

Claim Lag and IBNR Projection

Dental																						
Month																Incurred			Est. Total	Adj. Total		
incurred	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Total	Complete	Percent	Inc. Claims	Inc. Claims	Enrollme	nAvg./M
																_				_		
Jan-19 -29																0	1,219,594	100.0%	0	0	3,471	0.00
Feb-19 -28																0	1,219,594	100.0%	0	0	3,470	0.00
Mar-19 -27																0	1,219,594	100.0%	0	0	3,461	0.00
Apr-19 -26																0	1,219,594	100.0%	0	0	3,446	0.00
May-19 -25																0	1,219,594	100.0%	0	0	3,438	0.00
Jun-19 -24																0	1,219,594	100.0%	0	0	3,448	0.00
Jul-19 -23																0	1,219,594	100.0%	0	0	3,465	0.00
Aug-19 -22	103				27											130	1,219,594	100.0%	130	130	3,471	0.04
Sep-19 -21	0				0											0	1,219,594	100.0%	0	0	3,472	0.00
Oct-19 -20	1,789	73	104		447	370	5									2,788	1,219,594	100.0%	2,788	2,788	3,470	0.80
Nov-19 -19	135	101	0	272	0	0	221									729	1,219,594	100.0%	729	729	3,471	0.21
Dec-19 -18	457	1,025	0	0	288	5	376									2,151	1,219,594	100.0%	2,151	2,151	3,459	0.62
Jan-20 -17	2,100	831	227	1,260	600	219	5	160	336							5,738	1,219,594	100.0%	5,738	5,738	3,527	1.63
Feb-20 -16	6,501	1,215	1,449	750	0	302	121	343	99	199						10,979	1,219,594	100.0%	10,979	10,979	3,543	3.10
Mar-20 -15	24,031	2,656	1,555	1,997	69	139	0	0	0	0						30,447	1,219,594	100.0%	30,447	30,447	3,541	8.60
Apr-20 -14	13,301	6,747	1,353	200	0	0	274	0	0	0			333			22,208	1,219,594	100.0%	22,208	22,208	3,526	6.30
May-20 -13		24,189	36,462	1,722	380	393	395	0	0	197			0			63,737	1,219,594	100.0%	63,737	63,737	3,536	18.03
Jun-20 -12			88,002	80,981	1,784	3,627	1,174	2,979	0	329			0	119	495	179,491	1,219,594	100.0%	179,491	179,491	3,543	50.66
Jul-20 -11				117,061	56,708	6,973	3,461	3,752	231	101		295	0	102	2,139	190,822	1,218,766	99.9%	190,952	190,952	3,543	53.90
Aug-20 -10					96,767	71,574	5,731	3,238	1,411	44	99	0	230	128	108	179,330	1,216,310	99.7%	179,815	179,815	3,556	50.57
Sep-20 -9						80,274	90,016	2,283	1,270	2,528	1,089	189	0	0	1,434	179,083	1,216,099	99.7%	179,598	179,598	3,544	50.68
Oct-20 -8							110,572	54,087	3,280	2,415	332	538	517	0	286	172,027	1,214,537	99.6%	172,743	172,743	3,559	48.54
Nov-20 -7								89,572	68,855	5,001	4,025	620	1,245	637	1,084	171,039	1,213,529	99.5%	171,894	171,894	3,570	48.15
Dec-20 -6									114,268	40,445	5,209	1,054	504	721	1,134	163,335	1,212,116	99.4%	164,342	164,342	3,569	46.05
Jan-21 -5										132,295	75,166	6,621	3,919	1,863	0	219,864	1,209,440	99.2%	221,710	221,710	3,688	60.12
Feb-21 -4											127,930	87,276	7,687	903	90	223,886	1,205,803	98.9%	226,447	226,447	3,688	61.40
Mar-21 -3												136,250	113,227	5,834	1,821	257,132	1,199,866	98.4%	261,360	261,360	3,694	70.75
Apr-21 -2													120,191	62,256	8,308	190,755	1,185,728	97.2%	196,203	196,203	3,668	53.49
May-21 -1														97,692	56,680	154,372	1,147,068	94.1%	164,133	164,133	3,672	44.70
Jun-21 0															97,661	97,661	712,018	58.4%	167,280	207,010	3,676	56.31
																					1	
aid Total	48,417	36,838	129,151	204,243	157,070	163,876	212,351	156,413	189,751	183,554	213,850	232,843	247,853	170,255	171,239	2,199,305			2,296,475	2,336,205		
colling 12 Month av ercent Change	erage			204,243	180,656 -11.5%	175,063 -14.3%	184,385 -9.7%	178,790 -12.5%	180,617 -11.6%	181,037	185,138 -9.4%	190,439 -6.8%	196,180 -3.9%	193,823 -5.1%	191,941 -6.0%	(Prior 12)					1	
																		 	102.002	102.002		
eginning Medical I Inding Medical IBN Iedical IBNR Rese	R	(unout)																Runout (-12 IBNR IBNR Chn	97,170	103,993 136,900 32,908		

		Claim Fluctuation Margin							
		70%	70% 80%		95%	Other			
		6.0%	9.0%	12.0%	15.0%	20.0%			
	CFM	138,198	207,297	276,396	345,495	460,659			
	IBNR	158,120	158,120	158,120	158,120	158,120			
	Total	296,317	365,416	434,515	503,614	618,779			
6/30/2021	Fund			2,166,637					
Surplus/Deficit		1,870,320	1,801,221	1,732,122	1,663,023	1,547,858			

Adjustment for Large Claims	0.0%
Adjusted Dental IBNR	136,900
Adjustment for Margin	1.050
Add Admin	1.100
Est. Dental IBNR	158,120
Paid Claims (prior 12 months)	2,303,297
% of Paid Claims	6.9%