

## Economic Model

The following includes a unit cost roll up for both the Adult and Youth systems of care and a separate attachment for each system. Additionally the work sheets are attached that indicate the assumptions develop to derive the cost analysis. Below will be a brief description of each modality and the method for monetizing the services:

### 1. Outpatient Services:

a. **Adult services** were developed based on the following averaged services that will be provided to a client over a 90 day episode. The “bundle” of services will include the following:

- i. Intake and Assessment (1) episode averaging (90) minutes
- ii. Treatment Planning averaging (90) minutes over (1) or (2) sessions
- iii. Individual Treatment (8) sessions at (50) minutes
- iv. Family Treatment (2) session at (50) minutes
- v. Recovery Group services (8) sessions at (90) minutes
- vi. Psycho-educational Groups (8) sessions at (50) minutes
- vii. Discharge Planning (1) session at (90) minutes

This will provide a total of 1890 minutes (32 hours) of service on average for each adult outpatient client.

b. **Youth Services** were based also on an average length of stay of (90) days:

- i. Intake and Assessment (1) episode averaging 90 minutes
- ii. Treatment Planning averaging 90 minutes over (1) of (2) sessions
- iii. Individual Treatment (10) sessions at 50 minutes
- iv. Family Treatment (6) session at 50 minutes
- v. Recovery Group services (10) sessions at (90) minutes
- vi. Psycho-educational Groups (5) sessions at (50) minutes
- vii. Discharge Planning (1) session at (90) minutes

This will provide a total of 1920 (32.5 hours) of service on average for each youth outpatient client. There is a greater emphasis on individual and family work with the youth services.

2. **Partial Hospitalization Adult**-The Department will start with (20) slots and an average length of stay (LOS) of (40) actual days of services based on (5) days of (4.5 to 6 hours) of programming per week.

The day rate is based on review of the cost of a residential day and an Intensive outpatient day with a pegged average of \$87.00 per day of services.

### 3. Intensive Outpatient Services:

a. **Adult services** will be provided with an average LOS of (38.5) days. Weekly average participation is 3.5 days. Weekly average hours will be (14) hours of services.

b. **Youth services** will be provided with an average LOS of (14) days. Weekly average participation is 2 days. Weekly (6) hours of services.

4. **Recovery Services** include two initial modalities for both Adult and Youth treatment services:

a. **Adult/Youth services** will provide "Relapse Prevention" and "Continuous Recovery Monitoring" (CRM) for up to (180) days

i. **Relapse prevention:**

It is projected that 35% of clients discharging from treatment will enter the program. Services will include:

1. Individual Counseling (10) sessions at (50-90) minutes
2. Group Support (12) sessions at (90)
3. Family Support Individual sessions (8) at (50) minutes

ii. **CRM** will be provided to 50% of the clients. This will be comprised of an average of (1) phone contact per month for (10) months with an average call time of (15) minutes. **Note:** The use of the (50) minute session block does not work with the CRM and the department recommends developing this reimbursement on a minute unit to allow for proper billing and control of costs for this service.

5. **Case Management Services**

a. **Adult** is based on actual experience within the outpatient system. On average 15% of total treatment services have been associated with targeted case management services. The model projects that in the adult system 15% of the total hours will be case management activities (225-284) minutes or average (4-5 hours). It is projected that 40% of the clients will need case management services.

b. **Youth** is based on 25% of the served clients will need case management services with an average of (225-284) minutes of services.

6. **Physician Consultation** in the first year it is projected that the Department's physicians will provide consultation services to (431) beneficiaries with an average of (2) sessions of (15) minutes. The Department needs to discuss how this services will be direct billed or passed through to the physician service group from the provider that is uses this service.

7. **Residential Treatment**

a. **Adult Residential** services are based on an average bed day rate of \$138.31. Of that 27% is board and care expense leaving a net DMC rate of \$104.36.

b. **Youth Residential** services costs \$330 per day with a DMC billable rate of \$227.00.

## Adult/Youth Treatment

### Estimated Utilization and Proposed Rates (Combined):

<b>Services Provided By Modality (Funded By DMC)</b>	<b>FY 2016 Projected total fund Expenditures</b>	<b>Projected total Units of Service To be delivered</b>	<b>Projected total Beneficiaries served</b>	<b>Proposed Interim Rate per USOS</b>
<b>Outpatient</b>	<b>\$8,914,838</b>	<b>47,099</b>	<b>2,230</b>	<b>\$189.28</b>
<b>Partial Hospitalization</b>	<b>\$297,540</b>	<b>3,420</b>	<b>86</b>	<b>\$87.00</b>
<b>Intensive Outpatient</b>	<b>\$277,061</b>	<b>3,465</b>	<b>122</b>	<b>\$79.96</b>
<b>Recovery Services</b>	<b>\$5,204,515</b>	<b>26,335</b>	<b>1,967</b>	<b>\$197.62</b>
<b>Case Management</b>	<b>\$1,660,731</b>	<b>46,661</b>	<b>3,111</b>	<b>\$35.59</b>
<b>Physician Consultation</b>	<b>\$193,732</b>	<b>895</b>	<b>448</b>	<b>\$216.45</b>

### Withdrawal Management:

<b>Level 1-WM</b>	<b>\$835,774</b>	<b>6,570</b>	<b>842</b>	<b>\$127.00</b>
<b>Level 2-WM</b>				
<b>Level 3.2 WM</b>				

### Residential:

<b>Levels 3.1, 3.3, 3.5 &amp; Perinatal</b>	<b>\$4,168,148</b>	<b>38,142</b>	<b>826</b>	<b>\$109.28</b>
<b>Youth Residential</b>	<b>\$297,257</b>	<b>1,310</b>	<b>44</b>	<b>\$227.00</b>

### Proposed Rates: Summary FY 2016

<b>Services provided by Modality (fund by DMC)</b>	<b>Proposed Rate</b>	<b>Service Length/Unit of service (day-hour)</b>
<b>Outpatient</b>	<b>\$189.28</b>	<b>50 Minute Session</b>
<b>Partial Hospitalization</b>	<b>\$87.00</b>	<b>Per Day</b>
<b>Intensive Outpatient</b>	<b>\$79.96</b>	<b>Per Day</b>
<b>Recovery Services</b>	<b>\$197.62</b>	<b>50 Minute Session</b>
<b>Case Management</b>	<b>\$35.59</b>	<b>15 Minute Session</b>
<b>Physician Consultation</b>	<b>\$216.45</b>	<b>15 Minute Session</b>

### Withdrawal Management:

<b>Level 1-WM</b>	<b>\$127.00</b>	<b>Per Day</b>
<b>Level 2-WM</b>		
<b>Level 3-WM</b>		
<b>Level 3.7&amp;4 WM</b>		

### Residential:

<b>Level 3.1</b>	<b>\$104.36</b>	<b>Per Day</b>
<b>Level 3.3</b>	<b>\$104.36</b>	<b>Per Day</b>
<b>Level 3.5</b>	<b>\$104.36</b>	<b>Per Day</b>
<b>Youth Residential</b>	<b>\$227.00</b>	<b>Per Day</b>
<b>Opioid (Narcotic) Treatment Programs</b>		

## Adult Treatment

### Estimated Utilization and Proposed Rates:

<b>Services Provided By Modality (Funded By DMC)</b>	<b>FY 2016 Projected total fund Expenditures</b>	<b>Projected total Units of Service To be delivered</b>	<b>Projected total Beneficiaries served</b>	<b>Proposed Interim Rate per USOS</b>
<b>Outpatient</b>	<b>\$6,059,664</b>	<b>36,288</b>	<b>1,814</b>	<b>\$166.99</b>
<b>Partial Hospitalization</b>	<b>\$297,540</b>	<b>3420</b>	<b>86</b>	<b>\$87.00</b>
<b>Intensive Outpatient</b>	<b>\$221,649</b>	<b>2,772</b>	<b>72</b>	<b>\$79.96</b>
<b>Recovery Services</b>	<b>\$3,623,188</b>	<b>20,348</b>	<b>1,552</b>	<b>\$178.06</b>
<b>Case Management</b>	<b>\$1,554,553</b>	<b>44,752</b>	<b>2,983</b>	<b>\$34.74</b>
<b>Physician Consultation</b>	<b>\$193,732</b>	<b>895</b>	<b>448</b>	<b>\$216.45</b>

### Withdrawal Management:

<b>Level 1-WM</b>	<b>\$835,774</b>	<b>6,570</b>	<b>842</b>	<b>\$127.00</b>
<b>Level 2-WM</b>				
<b>Level 3.2 WM</b>				

### Residential:

<b>Levels 3.1, 3.3, 3.5 &amp; Perinatal</b>	<b>\$3,809,286</b>	<b>38,142</b>	<b>826</b>	<b>\$109.28</b>
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**Proposed Rates: Summary Page FY 2016**

<b>Services provided by Modality (fund by DMC)</b>	<b>Proposed Rate</b>	<b>Service Length/Unit of service (day-hour)</b>
<b>Outpatient</b>	<b>\$166.99</b>	<b>50 Minute Session</b>
<b>Partial Hospitalization</b>	<b>\$87.00</b>	<b>Per Day</b>
<b>Intensive Outpatient</b>	<b>\$79.96</b>	<b>Per Day</b>
<b>Recovery Services</b>	<b>\$178.06</b>	<b>50 Minute Session</b>
<b>Case Management</b>	<b>\$34.74</b>	<b>15 Minute Session</b>
<b>Physician Consultation</b>	<b>\$216.45</b>	<b>15 Minute Session</b>

**Withdrawal Management:**

<b>Level 1-WM</b>	<b>\$127.00</b>	<b>Per Day</b>
<b>Level 2-WM</b>		
<b>Level 3-WM</b>		
<b>Level 3.7&amp;4 WM</b>		

**Residential:**

<b>Level 3.1</b>	<b>\$104.36</b>	<b>Per Day</b>
<b>Level 3.3</b>	<b>\$104.36</b>	<b>Per Day</b>
<b>Level 3.5</b>	<b>\$104.36</b>	<b>Per Day</b>
<b>Levels 3.7/4</b>		
<b>Opioid (Narcotic) Treatment Programs</b>		

## Youth Treatment

### Estimated Utilization and Proposed Rates:

<b>Services Provided By Modality (Funded By DMC)</b>	<b><u>FY 2016</u> Projected total fund Expenditures</b>	<b>Projected total Units of Service To be delivered</b>	<b>Projected total Beneficiaries served</b>	<b>Proposed Interim Rate per USOS</b>
<b>Outpatient</b>	<b>\$2,966,174</b>	<b>10,811</b>	<b>416</b>	<b>\$264.10</b>
<b>Intensive Outpatient</b>	<b>\$55,412</b>	<b>693</b>	<b>50</b>	<b>\$79.96</b>
<b>Recovery Services</b>	<b>\$1,581,327</b>	<b>5,988</b>	<b>416</b>	<b>\$264.10</b>
<b>Case Management</b>	<b>\$106,178</b>	<b>1,909</b>	<b>127</b>	<b>\$55.63</b>

### Withdrawal Management (NA):

<b>Level 1-WM</b>				
<b>Level 2-WM</b>				
<b>Level 3.2 WM</b>				

**Proposed Rates: Summary Page FY 2016**

<b>Services provided by Modality (fund by DMC)</b>	<b>Proposed Rate</b>	<b>Service Length/Unit of service (day-hour)</b>
<b>Outpatient</b>	<b>\$264.10</b>	<b>50 Minute Session</b>
<b>Intensive Outpatient</b>	<b>\$79.96</b>	<b>Per Day</b>
<b>Recovery Services</b>	<b>\$264.10</b>	<b>15 Minute Session</b>
<b>Case Management</b>	<b>\$55.63</b>	<b>15 Minute Session</b>

**Withdrawal Management:**

<b>Level 1-WM</b>	<b>NA</b>	
<b>Level 2-WM</b>	<b>NA</b>	
<b>Level 3-WM</b>	<b>NA</b>	
<b>Level 3.7&amp;4 WM</b>		

**Residential:**

<b>Youth Residential</b>	<b>\$227.00</b>	<b>Per Day</b>
<b>Opioid (Narcotic) Treatment Programs</b>		



SANTA CLARA VALLEY HEALTH & HOSPITAL SYSTEM

BEHAVIORAL HEALTH SERVICES

Substance Use Treatment Services Expansion - Adults

Service Utilization Assumptions

Adult Worksheet

<b>Residential</b>		45% total clients assumed to be Medi-Cal eligible					
	<u>Beds</u>	<u>Clients Served</u>	<u>Medi-Cal</u>	<u>LOS Days</u>	<u>Total Days</u>	<u>Rate</u>	
	195	1,755	790	40	31,590	\$104.36	\$3,296,732.40 Board & Care removed
<b>Perinatal</b>		90% total clients assumed to be Medi-Cal eligible					
	<u>Beds</u>	<u>Clients Served</u>	<u>Medi-Cal</u>	<u>LOS Days</u>	<u>Total Days</u>	<u>Rate</u>	
	42	40	36	182	6,552	\$133.00	\$871,416.00 Board & Care removed
<b>Partial Hospitalization</b>		45% total clients assumed to be Medi-Cal eligible					
	<u>Slots</u>	<u>Clients Served</u>	<u>Medi-Cal</u>	<u>LOS Days</u>	<u>Total Days</u>	<u>Rate</u>	
	20	190	86	40	3,420	\$87.00	\$297,540.00
<b>IOP</b>		45% total clients assumed to be Medi-Cal eligible					
	<u>Slots</u>	<u>Clients Served</u>	<u>Medi-Cal</u>	<u>LOS Days</u>	<u>Total Days</u>	<u>Rate</u>	
	32	160	72	38.5	2,772	\$79.96	\$221,649.12
<b>OPDF Contract</b>		45% total clients assumed to be Medi-Cal eligible					
	<u>Slots</u>	<u>Clients Served</u>	<u>Medi-Cal</u>	<u>50 Min Units</u>	<u>Total Units</u>	<u>Rate</u>	
	858	3,432	1544	20	30,888	\$128.00	\$3,953,664.00
<b>OPDF County</b>							
	150	600	270	20	5,400	\$390.00	\$2,106,000.00
						Total	\$6,059,664.00
<b>Recovery Services</b>							
<b>CBOs</b>			<u>Medi-Cal</u>	<u>50 Min Units</u>	<u>Total Units</u>	<u>Rate</u>	
Relapse	43% of M/C OPDF Clients		664	22	14,607	\$128.00	\$1,869,648.17
CRM	40% of M/C OPDF Clients		618	3	1,853	\$128.00	\$237,219.84
<b>County</b>							
Relapse	60% of M/C OPDF Clients		162	22	3,564	\$390.00	\$1,389,960.00
CRM	40% of M/C OPDF Clients		108	3	324	\$390.00	\$126,360.00
						Total	\$3,623,188.01
<b>Case Management</b>		40% total clients assumed to be Medi-Cal eligible					
	<u>Clients Served</u>	<u>Medi-Cal</u>	<u>15 Min Units</u>	<u>Total Units</u>	<u>Rate</u>		
CBO	6,859	2,743	15	41,152	\$29.85	\$1,228,392.73	
County	600	240	15	3,600	\$90.60	\$326,160.00	
						Total	\$1,554,552.73
<b>Medical Consultation services@ 15%</b>		15% clients require med consultation					
		<u>Medi-Cal</u>	<u>15 Min Units</u>	<u>Total Units</u>	<u>Rate</u>		
		448	2	895	\$216.45	\$193,732.21	
						<b>Grand Total</b>	<b>\$16,118,474.47</b>

Rates:

1. Residential, Perinatal, Partial Hospitalization & IOP rates are based on the department's current contract rates
2. OPDF, Recovery Services, Case Management and Medical Consultation rates are based on the department's FY14 & 15 Mental Health cost report rates

SANTA CLARA VALLEY HEALTH & HOSPITAL SYSTEM							
BEHAVIORAL HEALTH SERVICES							
Substance Use Treatment Services Expansion - Children							
Service Utilization Assumptions							
Youth Worksheet							
<b>Residential</b>			45%	total clients assumed to be Medi-Cal eligible			
	<u>Beds</u>	<u>Clients Served</u>	<u>Medi-Cal</u>	<u>LOS Days</u>	<u>Total Days</u>	<u>Rate</u>	
	8	97	44	30	1,310	\$227.00	\$297,256.50
B&C removed							
<b>IOP</b>			45%	total clients assumed to be Medi-Cal eligible			
	<u>Slots</u>	<u>Clients Served</u>	<u>Medi-Cal</u>	<u>LOS Days</u>	<u>Total Days</u>	<u>Rate</u>	
	12	110	50	14	693	\$79.96	\$55,412.28
<b>OPDF Contract</b>			45%	total clients assumed to be Medi-Cal eligible			
	<u>Slots</u>	<u>Clients Served</u>	<u>Medi-Cal</u>	<u>LOS Days</u>	<u>Total Days</u>	<u>Rate</u>	
	111	444	200	26	5,195	\$128.00	\$664,934.40
<b>OPDF County</b>							
	120	480	216	26	5,616	\$390.00	\$2,190,240.00
					10,811	Total	\$2,855,174.40
<b>Recovery Services CBOs</b>							
	<u>Slots</u>		<u>Medi-Cal</u>	<u>LOS Days</u>	<u>Total Days</u>	<u>Rate</u>	
	Relapse	60% of M/C OPDF Clients	120	22	2,637	\$128.00	\$337,582.08
	CRM	40% of M/C OPDF Clients	80	3	240	\$128.00	\$30,689.28
<b>Recovery Services County</b>							
	Relapse	60% of M/C OPDF Clients	130	22	2,851	\$390.00	\$1,111,968.00
	CRM	40% of M/C OPDF Clients	86	3	259	\$390.00	\$101,088.00
					5,988	Total	\$1,581,327.36
<b>Case Management@25%</b>			25%	total clients assumed to be Medi-Cal eligible			
		<u>Clients Served</u>	<u>Medi-Cal</u>	<u>15 Min Units</u>	<u>Total Units</u>	<u>Rate</u>	
	CBO	293	73	15	1,099	\$29.85	\$32,792.09
	County	216	54	15	810	\$90.60	\$73,386.00
			127		1,909	Total	\$106,178.09
						<b>Grand Total</b>	<b>\$4,895,348.63</b>
<b>Rates:</b>							
1. Residential & IOP rates are based on the department's current contract rates							
2. OPDF, Recovery Services & Case Management rates are based on the department's FY14 & 15 Mental Health cost report rates							

SANTA CLARA VALLEY HEALTH & HOSPITAL SYSTEM  
 BEHAVIORAL HEALTH SERVICES  
 Substance Use Treatment Services Expansion  
 Old vs. New Old

**OLD WORLD**

ADULT POPULATION Level of Care	Percent of Total		Cost			Revenue		
	Medi-Cal	non MC	Medi-Cal	Non MC	Total	DMC	SGF/CGF	
Outpatient	45%	55%	\$6,059,664	\$7,409,225	\$13,468,889	\$1,446,904	\$12,021,985	
Intensive Outpatient	45%	55%	\$221,649	\$270,904	\$492,554	\$161,608	\$330,946	
Recovery - Relapse	45%	55%	\$3,259,608	\$3,985,563	\$7,245,171	\$0	\$7,245,171	
Recovery - CRM	45%	55%	\$363,580	\$444,554	\$808,133	\$0	\$808,133	
Case Management	40%	60%	\$1,554,824	\$2,331,715	\$3,886,539	\$0	\$3,886,539	
Physician Consultation	40%	60%	\$174,564	\$261,788	\$436,352	\$0	\$436,352	
Partial Hospitalization	45%	55%	\$297,540	\$359,816	\$657,356	\$0	\$657,356	
Residential	45%	55%	\$3,296,732	\$4,029,340	\$7,326,072	\$0	\$7,326,072	
Residential (Perinatal)	90%	10%	\$871,416	\$96,824	\$968,240	\$655,003	\$313,237	
<b>TOTAL</b>			<b>\$16,099,578</b>	<b>\$19,189,728</b>	<b>\$35,289,306</b>	<b>\$2,263,515</b>	<b>\$33,025,791</b>	

**NEW WORLD**

Percent of Total			Cost			Revenue		
50% MC	100% MC	Non MC	50% MC	100% MC	Non MC	Total	DMC	SGF/CGF
24%	21%	55%	\$3,211,622	\$2,848,042	\$7,409,225	\$13,468,889	\$4,453,853	\$9,015,036
24%	21%	55%	\$117,474	\$104,175	\$270,904	\$492,554	\$221,649	\$270,904
24%	21%	55%	\$1,727,592	\$1,532,016	\$3,985,563	\$7,245,171	\$3,259,608	\$3,985,563
24%	21%	55%	\$192,697	\$170,883	\$444,554	\$808,133	\$363,580	\$444,554
21%	19%	60%	\$824,057	\$730,767	\$2,331,715	\$3,886,539	\$1,554,553	\$2,331,987
21%	19%	60%	\$92,519	\$82,045	\$261,788	\$436,352	\$174,564	\$261,788
24%	21%	55%	\$157,696	\$139,844	\$359,816	\$657,356	\$297,540	\$359,816
24%	21%	55%	\$1,747,268	\$1,549,464	\$4,029,340	\$7,326,072	\$3,296,732	\$4,029,340
48%	42%	10%	\$461,850	\$409,566	\$968,240	\$968,240	\$871,416	\$96,824
<b>TOTAL</b>			<b>\$8,532,776</b>	<b>\$7,566,802</b>	<b>\$19,189,728</b>	<b>\$35,289,306</b>	<b>\$14,493,495</b>	<b>\$20,795,811</b>

**OLD WORLD**

CHILDREN POPULATION Level of Care	Percent of Total		Cost			Revenue		
	Medi-Cal	non MC	Medi-Cal	Non MC	Total	DMC	SGF/CGF	
Outpatient	45%	55%	\$2,855,174	\$3,486,607	\$6,341,782	\$431,057	\$5,910,725	
Intensive Outpatient	45%	55%	\$55,412	\$67,726	\$123,138	\$40,402	\$82,737	
Recovery - Relapse	45%	55%	\$1,449,347	\$1,769,876	\$3,219,223	\$0	\$3,219,223	
Recovery - CRM	45%	55%	\$131,777	\$160,920	\$292,698	\$0	\$292,698	
Case Management	25%	75%	\$106,178	\$319,370	\$425,548	\$0	\$425,548	
Residential	45%	55%	\$297,257	\$363,314	\$660,570	\$0	\$660,570	
<b>TOTAL</b>			<b>\$4,895,146</b>	<b>\$6,167,814</b>	<b>\$11,062,959</b>	<b>\$471,459</b>	<b>\$10,591,501</b>	

**NEW WORLD**

Percent of Total			Cost			Revenue		
50% MC	100% MC	Non MC	50% MC	100% MC	Non MC	Total	DMC	SGF/CGF
24%	21%	55%	\$1,513,242	\$1,341,932	\$3,486,607	\$6,341,782	\$2,098,553	\$4,243,228
24%	21%	55%	\$29,369	\$26,044	\$67,726	\$123,138	\$55,412	\$67,726
24%	21%	55%	\$768,154	\$681,193	\$1,769,876	\$3,219,223	\$1,449,347	\$1,769,876
24%	21%	55%	\$69,842	\$61,935	\$160,920	\$292,698	\$131,777	\$160,920
13%	12%	75%	\$56,274	\$49,904	\$319,370	\$425,548	\$106,178	\$319,370
24%	21%	55%	\$157,546	\$139,711	\$363,314	\$660,570	\$297,257	\$363,314
<b>TOTAL</b>			<b>\$2,594,427</b>	<b>\$2,300,719</b>	<b>\$6,167,814</b>	<b>\$11,062,959</b>	<b>\$4,138,525</b>	<b>\$6,924,435</b>