

GENETIC DISEASE SCREENING PROGRAM (GDSP)

FY 2018-19 May Revision Estimate



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A. Program Overview

The California Department of Public Health (CDPH), Genetic Disease Screening Program (GDSP) Estimate provides a revised projection of Fiscal Year (FY) 2017-18 expenditures along with projected costs for FY 2018-19 Local Assistance and State Operations budget for CDPH/GDSP.

The CDPH/GDSP Local Assistance budget funds two distinct programs: the Newborn Screening Program (NBS) and the Prenatal Screening Program (PNS). NBS is a mandatory program that screens all infants born in California for genetic diseases. Parents may opt their newborns out of the program by claiming religious exemptions. PNS is an opt-in program for women who desire to participate. The screening test provides the pregnant woman with a risk profile. Screenings that meet or exceed a specified risk threshold are identified and further testing and genetic counseling/diagnostic services are offered at no additional expense to the participant.

B. Combined State Operations and Local Assistance Expenditure Overview

The CDPH/GDSP FY 2018-19 Governor's Budget appropriation for FY 2017-18 is \$132.4 million, of which \$104.7 million is for Local Assistance and \$27.7 million is for State Operations. At May Revision, CDPH/GDSP estimates FY 2017-18 expenditures will be \$132.1 million, which is a decrease of \$293,000 or 0.22 percent compared to the FY 2018-19 Governor's Budget. The CDPH/GDSP FY 2018-19 proposed Governor's Budget appropriation for FY 2018-19 is \$132.9 million. At May Revision, the CDPH/GDSP estimates FY 2018-19 budget expenditures will be \$133 million, of which \$29.5 million is for State Operations and \$103.5 million is for Local Assistance. Overall, this is an increase of \$28,000 or 0.02 percent compared to the FY 2018-19 Governor's Budget.

Table 1 shows the difference between the FY 2018-19 Governor's Budget appropriation and the revised FY 2017-18 expenditures and proposed FY 2018-19 expenditures for CDPH/GDSP.

Genetic Disease Screening Program: Current Year and Budget Year Budget Summaries Compared to 2018-19 Governor's Budget

Fund 0203 Genetic Disease Testing Fund	2017 Budget Act	FY 2017-18				FY 2018-19			
		2018-19 Governor's Budget	2018 May Revision	Change from Governor's Budget to May Revision	Percent Change from Governor's Budget to May Revision	2018-19 Governor's Budget	2018 May Revision	Change from Governor's Budget to May Revision	Percent Change from Governor's Budget to May Revision
Total	\$ 131,586,000	\$ 132,382,000	\$ 132,089,000	\$ (293,000)	-0.22%	\$ 132,924,000	\$ 132,952,000	\$ 28,000	0.02%
State Operations	\$ 26,854,000	\$ 27,650,000	\$ 27,650,000	\$ -	0.00%	\$ 29,451,000	\$ 29,451,000	\$ -	0.00%
Local Assistance	\$ 104,732,000	\$ 104,732,000	\$ 104,439,000	\$ (293,000)	-0.28%	\$ 103,473,000	\$ 103,501,000	\$ 28,000	0.03%

C. Local Assistance Expenditure Projections**Current Year (FY 2017-18)**

The FY 2018-19 Governor's Budget appropriation for CDPH/GDSP's Local Assistance is \$104.7 million in FY 2017-18. CDPH/GDSP anticipates revised FY 2017-18 Local Assistance expenditures of \$104.4 million, which is a decrease of \$293,000 or 0.28 percent compared to the FY 2018-19 Governor's Budget. The decrease is due to the slight decrease in caseload results from the Department of Finance's (DOF) Demographic Research Unit's (DRU) projection of live births.

Budget Year (FY 2018-19)

For FY 2018-19, CDPH/GDSP estimates Local Assistance expenditures will total \$103.5 million, which is a slight increase of \$28,000 or 0.03 percent compared to the FY 2018-19 Governor's Budget amount of \$103.47 million. The increase is attributed to a slight increase of the actual caseload of prenatal and newborn tests.

Table 2 shows the difference between the FY 2018-19 Governor's Budget appropriation and the revised FY 2017-18 expenditures and proposed FY 2018-19 expenditures for CDPH/GDSP Local Assistance.

Table 2

Local Assistance Total: Current Year and Budget Year Budget Summaries Compared to 2018-19 Governor's Budget

Fund 0203 Genetic Disease Testing Fund	2017 Budget Act	FY 2017-18				FY 2018-19			
		2018-19 Governor's Budget	2018 May Revision	Change from Governor's Budget to May Revision	Percent Change from Governor's Budget to May Revision	2018-19 Governor's Budget	2018 May Revision	Change from Governor's Budget to May Revision	Percent Change from Governor's Budget to May Revision
Local Assistance Total	\$ 104,732,000	\$ 104,732,000	\$ 104,439,000	\$ (293,000)	-0.28%	\$ 103,473,000	\$ 103,501,000	\$ 28,000	0.03%
Newborn Screening	\$ 41,259,000	\$ 40,097,000	\$ 39,948,000	\$ (149,000)	-0.37%	\$ 40,984,000	\$ 41,006,000	\$ 22,000	0.05%
Prenatal Screening	\$ 34,224,000	\$ 35,184,000	\$ 35,040,000	\$ (144,000)	-0.41%	\$ 35,016,000	\$ 35,022,000	\$ 6,000	0.02%
Operational Support	\$ 29,249,000	\$ 29,451,000	\$ 29,451,000	\$ -	0.00%	\$ 27,473,000	\$ 27,473,000	\$ -	0.00%

Expenditure Methodology / Key Drivers of Cost

The CDPH/GDSP Local Assistance expenditures are split into three areas: Prenatal Screening (PNS), Newborn Screening (NBS) and Operational Support. Operational Support costs do not fluctuate greatly with changes in caseload. For both PNS and NBS Program areas, the key drivers of cost are the following:

1. NBS and PNS projected caseloads for the following:
 - a. Total clients served
 - b. Cases that receive case management
 - c. Cases that are referred for diagnostic services
 - d. Cases that are referred to reference laboratories (NBS only)
2. Average Case Cost for the following services:
 - a. Contract laboratories
 - b. Technology & Scientific supplies (Tech & Sci)
 - c. Case Management and Coordination Services (CMCS)
 - d. Follow-up Diagnostic Services (FDS)
 - e. Reference laboratories (NBS only)

To calculate the total projected Local Assistance costs, CDPH projects NBS and PNS caseloads and multiplies them by their respective projected average cost. They are then added to the Operational Support costs to calculate the total CDPH/GDSP Local Assistance cost.

- NBS total costs equal the sum of:
 - Total clients served x Contract laboratory average cost
 - Total clients served x Technology and Scientific average cost
 - Case Management cases x Case Management and Coordination average cost
 - Diagnostic Services cases x Diagnostic Services average cost

- Reference laboratory cases x Reference laboratory average cost
- PNS total costs equal the sum of:
 - Total clients served x Contract laboratory average cost
 - Total clients served x Technology and Scientific average cost
 - Case Management cases x Case Management and Coordination average cost
 - Diagnostic Services cases x Diagnostic Services average cost
- Operational Support Costs are the sum of various service contracts that support CDPH/GDSP, including Information Technology (IT) and courier services.

Below, we summarize the projections for each of the drivers of cost for the NBS and PNS Programs. More detailed descriptions of the assumptions and rationale underlying each component of cost is presented in the appendices.

NBS Expenditure Projections (See Appendices A1-A5)

For FY 2017-18, CDPH/GDSP estimates NBS Local Assistance expenditures to total \$39.9 million, which is a decrease of \$149,000 or 0.4percent compared to the FY 2018-19 Governor's Budget of \$40.1 million. The decrease is due to the decrease in caseload and lower average costs in most of the NBS expenditure categories.

For FY 2018-19, CDPH/GDSP estimates that NBS Local Assistance expenditures will total \$41.0 million, which is an increase of \$22,000 or 0.05 percent compared to FY 2018-19 Governor's Budget of \$40.9 million. The increase in the budget year funding is associated with a slight increase in the NBS and PNS caseloads.

Table 3 shows the FY 2018-19 Governor's Budget appropriation and the revised FY 2017-18 expenditures and proposed FY 2018-19 expenditures for the Newborn Screening Program costs by client type.

Table 3
Newborn Screening: Current Year and Budget Year Budget Summaries Compared to 2018-19 Governor's Budget

Fund 0203 Genetic Disease Testing Fund	2017 Budget Act	FY 2017-18				FY 2018-19			
		2018-19 Governor's Budget	2018 May Revision	Change from Governor's Budget to May Revision	Percent Change from Governor's Budget to May Revision	2018-19 Governor's Budget	2018 May Revision	Change from Governor's Budget to May Revision	Percent Change from Governor's Budget to May Revision
Total	\$ 41,259,000	\$ 40,097,000	\$ 39,948,000	\$ (149,000)	-0.37%	\$ 40,984,000	\$ 41,006,000	\$ 22,000	0.05%
Lab Dollars	\$ 7,907,000	\$ 7,004,000	\$ 6,976,000	\$ (28,000)	-0.40%	\$ 6,971,000	\$ 6,972,000	\$ 1,000	0.01%
Tech & Sci	\$ 25,466,000	\$ 24,428,000	\$ 24,330,000	\$ (98,000)	-0.40%	\$ 25,280,000	\$ 25,285,000	\$ 5,000	0.02%
Reference Lab	\$ 1,836,000	\$ 1,686,000	\$ 1,679,000	\$ (7,000)	-0.42%	\$ 1,866,000	\$ 1,867,000	\$ 1,000	0.05%
CMCS	\$ 4,354,000	\$ 4,841,000	\$ 4,821,000	\$ (20,000)	-0.41%	\$ 4,772,000	\$ 4,773,000	\$ 1,000	0.02%
Diagnostic Services	\$ 1,696,000	\$ 2,138,000	\$ 2,142,000	\$ 4,000	0.19%	\$ 2,095,000	\$ 2,109,000	\$ 14,000	0.67%

PNS Expenditures Projections (See Appendices B1-B4)

For FY 2017-18, CDPH/GDSP estimates PNS Local Assistance expenditures total \$35 million, which is a decrease of \$144,000 or 0.41 percent compared to the FY 2018-19 Governor's Budget of \$35.2 million. The decrease is due to the decrease in projected caseload.

For FY 2018-19, CDPH/GDSP estimates that PNS Local Assistance expenditures will total \$35.0 million, which is an increase of \$6,000 or 0.02 percent compared to the FY 2018-19 Governor's Budget of \$35 million. The increase is due to the slight increase in PNS caseload.

Table 4 shows the FY 2018-19 Governor's Budget appropriation and the revised FY 2017-18 expenditures and proposed FY 2018-19 expenditures for the Prenatal Screening program costs by client type.

Table 4

Prenatal Screening: Current Year and Budget Year Budget Summaries Compared to 2018-19 Governor's Budget

Fund 0203 Genetic Disease Testing Fund	2017 Budget Act	FY 2017-18				FY 2018-19			
		2018-19 Governor's Budget	2018 May Revision	Change from Governor's Budget to May Revision	Percent Change from Governor's Budget to May Revision	2018-19 Governor's Budget	2018 May Revision	Change from Governor's Budget to May Revision	Percent Change from Governor's Budget to May Revision
Total	\$ 34,224,000	\$ 35,184,000	\$ 35,040,000	\$ (144,000)	-0.41%	\$ 35,016,000	\$ 35,022,000	\$ 6,000	0.02%
Contract Lab	\$ 4,706,000	\$ 4,512,000	\$ 4,493,000	\$ (19,000)	-0.42%	\$ 4,490,000	\$ 4,491,000	\$ 1,000	0.02%
Tech & Sci	\$ 12,118,000	\$ 13,280,000	\$ 13,226,000	\$ (54,000)	-0.41%	\$ 13,217,000	\$ 13,219,000	\$ 2,000	0.02%
CMCS	\$ 5,967,000	\$ 6,101,000	\$ 6,075,000	\$ (26,000)	-0.43%	\$ 6,072,000	\$ 6,072,000	\$ -	0.00%
PDC	\$ 11,433,000	\$ 11,291,000	\$ 11,246,000	\$ (45,000)	-0.40%	\$ 11,237,000	\$ 11,240,000	\$ 3,000	0.03%

Operational Support Projections

For FY 2017-18, the CDPH/GDSP revised operational support expenditures total was \$29.5 million, which is no change compared to the 2018-19 Governor's Budget.

In FY 2018-19, CDPH/GDSP projects operational support expenditures will total \$27.5 million, which is no change compared to the 2018-19 Governor's Budget.

Table 5 shows the difference between the 2018-19 Governor's Budget appropriation and the revised FY 2017-18 expenditures and proposed FY 2018-19 expenditures for the Program Operational Support costs.

Table 5

Operational Support: Current Year and Budget Year Budget Summaries Compared to 2018-19 Governor's Budget

Fund 0203 Genetic Disease Testing Fund	2017 Budget Act	FY 2017-18				FY 2018-19			
		2018-19 Governor's Budget	2018 May Revision	Change from Governor's Budget to May Revision	Percent Change from Governor's Budget to May Revision	2018-19 Governor's Budget	2018 May Revision	Change from Governor's Budget to May Revision	Percent Change from Governor's Budget to May Revision
Operational Support	\$ 29,249,000	\$ 29,451,000	\$ 29,451,000	\$ -	0.00%	\$ 27,473,000	\$ 27,473,000	\$ -	0.00%

D. State Operations Expenditure Projections

In FY 2017-18, CDPH/GDSP estimates that State Operations expenditures will total \$27.7 million, which is no change from the FY 2018-19 Governor's Budget amount of \$27.7 million.

In FY 2018-19, CDPH/GDSP estimates State Operations expenditures will total \$29.5 million, which is no change from the FY 2018-19 Governor's Budget amount of \$29.5 million.

Table 6 shows the difference between the FY 2018-19 Governor's Budget appropriation and the revised FY 2017-18 expenditures and proposed FY 2018-19 expenditures for the CDPH/GDSP State Operations costs.

State Operations: Current Year and Budget Year Budget Summaries Compared to 2018-19 Governor's Budget

Fund 0203 Genetic Disease Testing Fund	2017 Budget Act	FY 2017-18				FY 2018-19			
		2018-19 Governor's Budget	2018 May Revision	Change from Governor's Budget to May Revision	Percent Change from Governor's Budget to May Revision	2018-19 Governor's Budget	2018 May Revision	Change from Governor's Budget to May Revision	Percent Change from Governor's Budget to May Revision
State Operations	\$ 26,854,000	\$ 27,650,000	\$ 27,650,000	\$ -	0.00%	\$ 29,451,000	\$ 29,451,000	\$ -	0.00%

E. Revenue Projections

Combined NBS and PNS Revenue

CDPH/GDSP has revised revenue estimates for FY 2017-18 totaling \$126.2 million, which is a decrease of \$511,000 or 0.4 percent compared to the 2018-19 Governor's Budget amount of \$126.7 million.

For FY 2018-19, CDPH/GDSP projects revenue will total \$131.7 million, which is virtually no change compared to the 2018-19 Governor's Budget amount of \$131.7 million.

The 2018 May Revision Estimate projects the FY 2017-18 NBS caseload at 478,678, which is a decrease of 1,929 cases or 0.4 percent compared to the 2017 November Estimate caseload projection of 480,607 cases for FY 2017-18. For FY 2018-19, the 2018 May Revision Estimate projects the NBS caseload at 478,419, which is an increase of 98 cases or 0.02 percent compared to 2017 November Estimate caseload projection of 478,321 for FY 2018-19.

The 2018 May Revision Estimate projects the FY 2017-18 PNS caseload at 342,533, which is a decrease of 1,400 cases or 0.4 percent compared to the 2017 November Estimate caseload projection of 343,933 cases for FY 2017-18. For FY 2018-19, the 2018 May Revision Estimate projects the PNS caseload at 342,348, which is an increase of 52 cases or 0.02 percent compared to the 2017 November Estimate caseload projection of 342,296 for FY 2018-19.

Revenue Methodology

The PNS and NBS Programs each charge a fee for screening services provided to clients.

The PNS Program charges a fee of \$221.60, \$211.60 of which is deposited into the Genetic Disease Testing Fund (Fund 0203). The remaining \$10 is deposited into the Birth Defects Monitoring Program Fund (Fund 3114).

CDPH/GDSP invoices and collects PNS payments from individual participants, private insurers and Medi-Cal. CDPH/GDSP is able to collect approximately 98 percent of all fees owed on behalf of Medi-Cal clients (which is approximately 45 percent of the total caseload), and approximately 83 percent of the fees owed by individuals with private insurances. CDPH/GDSP uses the following formula to estimate revenue generated from PNS fees:

$$(\text{Fee} \times \text{PNS Participants} \times \text{Medi-Cal Participation Rate} \times \text{Medi-Cal Collection Rate}) + (\text{Fee} \times \text{PNS Participants} \times [1 - \text{Medi-Cal Participation Rate}] \times \text{Private Payer Collection Rate})$$

NBS participants are charged a fee of \$130.45. Unlike PNS, where CDPH/GDSP bills patients and collects fees from insurers, CDPH/GDSP collects the bulk of NBS revenue directly from hospitals. Only home births, where specimens are collected outside of the hospital, are billed to the newborns' parents or their insurance company. As such, the billing for NBS screening services is much more streamlined resulting in a 98 percent collection rate. CDPH/GDSP uses the following formula to estimate revenue generated from NBS fees.

Effective July 1, 2018, NBS participants will be charged a fee of \$142.25, an increase of \$12. The increase is needed to support the increase in expenditures to perform the routine and ongoing workload for MPS1 and Pompe disease screening.

Fee x # of Projected Newborns screened x Collection Rate

NBS Revenue (See Appendix C-1)

In FY 2017-18, NBS revenue is expected to total \$61.1 million, which is a decrease of \$246,000 or 0.4 percent compared to the 2018-19 Governor’s Budget of \$61.3 million.

In FY 2018-19, CDPH/GDSP projects NBS revenue will total \$66.7 million, which is virtually no change compared to the 2018-19 Governor’s Budget of \$66.7 million.

PNS Revenue (See Appendix C2)

In FY 2017-18, PNS revenue is expected to total \$65.1 million, which is a decrease of \$265,000 or 0.41 percent compared to the 2018-19 Governor’s Budget amount of \$65.3 million.

In FY 2018-19, CDPH/GDSP projects PNS revenue will total \$65 million, which is virtually no change compared to the 2018-19 Governor’s Budget of \$65 million.

Table 7 shows the revised current year revenue projections for current year and budget year compared to 2018-19 Governor’s Budget.

Table 7

Genetic Disease Screening Program Revenue: Current Year and Budget Year Revenue Summaries Compared to 2018-19 Governor's Budget

Fund 0203 Genetic Disease Testing Fund	2017 Budget Act	FY 2017-18				FY 2018-19			
		2018-19 Governor's Budget	2018 May Revision	Change from Governor's Budget to May Revision	Percent Change from Governor's Budget to May Revision	2018-19 Governor's Budget	2018 May Revision	Change from Governor's Budget to May Revision	Percent Change from Governor's Budget to May Revision
Total	\$ 127,296,000	\$ 126,663,000	\$ 126,152,000	\$ (511,000)	-0.40%	\$ 131,686,000	\$ 131,709,000	\$ 23,000	0.02%
Newborn Screening	\$ 61,124,000	\$ 61,347,000	\$ 61,101,000	\$ (246,000)	-0.40%	\$ 66,680,000	\$ 66,694,000	\$ 14,000	0.02%
Prenatal Screening	\$ 66,172,000	\$ 65,316,000	\$ 65,051,000	\$ (265,000)	-0.41%	\$ 65,006,000	\$ 65,015,000	\$ 9,000	0.01%

GENETIC DISEASE TESTING FUND
FUND CONDITION REPORT
DOLLARS IN THOUSANDS

	2016-17	2017-18	2018-19
RESOURCES			
BEGINNING BALANCE	\$20,917	\$21,781	\$14,113
Prior Year Adjustment	-2,806	0	-
Adjusted Beginning Balance	18,111	21,781	14,113
REVENUES			
121100 Genetic Disease Testing Fees ^{1/}	127,384	126,152	131,709
150300 Income from Surplus Investments	43	45	45
161000 Escheat of Unclaimed Checks & Warrants	2	2	2
TOTALS, REVENUES	127,429	126,199	131,756
TOTAL RESOURCES	\$145,540	\$147,980	\$145,869
EXPENDITURES AND EXPENDITURE ADJUSTMENTS			
4265 Department of Public Health (State Operations)	22,072	27,650	29,451
4265 Department of Public Health (Local Assistance)	99,947	104,439	103,501
8880 Financial Information System for California (State Operations)	36	34	3
9892 Supplemental Pension Payments (State Operations)			202
9900 Statewide General Admin Exp (ProRata) (State Operations)	1,724	1,724	1,744
TOTAL EXPENDITURES AND EXPENDITURE ADJUSTMENTS	123,779	133,847	134,901
FUND BALANCE	21,761	14,113	10,968
	18%	11%	8%

REVENUE PROJECTIONS

2017-18

2017-18 NBS FEES BASED ON	478,679 TESTS @	\$130.25 AND 98% Provider ^{1/}	=	\$61,101,000
2017-18 PNS FEES BASED ON	188,393 TESTS @	\$211.60 AND 83% Non Medi-Cal ^{2/}	=	\$33,087,000
2017-18 PNS FEES BASED ON	154,139 TESTS @	\$211.60 AND 98% Medi-Cal ^{3/}	=	\$31,964,000
	342,532			\$65,051,000
GDSP Total				\$126,152,000

2018-19

2018-19 NBS FEES BASED ON	478,419 TESTS @	\$142.25 AND 98% Provider ^{1/}	=	\$66,894,000
2018-19 PNS FEES BASED ON	188,291 TESTS @	\$211.60 AND 83% Non Medi-Cal ^{2/}	=	\$33,089,000
2018-19 PNS FEES BASED ON	154,056 TESTS @	\$211.60 AND 98% Medi-Cal ^{3/}	=	\$31,946,000
	342,347			\$65,015,000
GDSP Total				\$131,709,000

- 1/ NBS Fees based on 98% hospital and other provider collection rate
- 2/ PNS Fees based on 83% of private payer / insurance collection rate
- 3/ PNS Fees based on 98% Medi-Cal Collection rate

II. General Assumptions

Future Fiscal Issues**Senate Bill (SB) 1095: Newborn Screening Program**

Background: Senate Bill (SB) 1095 (Chapter 393, Statutes of 2016) amends Sections 124977 and 125001 of the Health and Safety Code and requires the California Department of Public Health (CDPH)/Genetic Disease Screening Program (GDSP) to expand statewide screening of newborns to include screening for any disease that is detectable in blood samples within two years of the disease being adopted by the federal Recommended Uniform Screening Panel (RUSP).

Description of Change: Screening for additional diseases will require start-up costs, additional laboratory equipment, changes to the Screening Information System (SIS), the follow-up systems, the addition of new confirmatory testing, and possibly additional personnel. Furthermore, as additional diseases are added to the federal RUSP, there will be a need to request additional expenditure authority necessary to plan, prepare for, and implement the additional required screening (for any new diseases). If CDPH/GDSP is unable to absorb the additional spending authority within its current revenue, a fee increase may need to be implemented.

On February 8, 2018, the U.S. Department of Health and Human Services' Advisory Committee on Heritable Disorders in Newborns and Children voted to recommend spinal muscular atrophy (SMA) for inclusion in the RUSP. If the Secretary of Health and Human Services approves this disorder for the RUSP, CDPH/GDSP will be required to add SMA screening within two years or as early as FY 2019-20. This could potentially impact FY 2018-19 expenditures and revenues. However, whether or not and when SMA might be added to the RUSP is not certain, so this issue will remain as a future fiscal impact.

Discretionary: No

Reason for Adjustment/Change: Passage of SB 1095 required CDPH/GDSP to expand statewide screening of newborns to include screening for any disease that is detectable in blood samples within two years of the disease being adopted by the RUSP.

Fiscal Impact (Range) and Fund Source(s): Expenditures will increase by approximately \$1.0 million to \$2.5 million per year for any new disorder adopted by the RUSP. This range is only an estimate as it was based on costs for the last two additions to the Newborn Screening panel – Pompe and MPS-I. Furthermore, as additional diseases are added to the RUSP, there will be a need to request additional expenditure authority necessary to plan, prepare for, and implement the additional required screening (for any new diseases). If CDPH/GDSP is unable to absorb the additional spending authority within its current revenue, a fee increase may need to be implemented. The fund source is the Genetic Disease Testing Fund (Fund 0203).

New Assumptions/ Premises**Birth Defects Surveillance Activities**

Background: The CDPH administers California's GDSP, which includes the Prenatal Screening Program (PNS), Newborn Screening Program (NBS), and California Birth Defects Monitoring Program (CBDMP).

The CBDMP has the statutory requirement to conduct birth defect surveillance throughout the state. Specifically, Health and Safety Code sections 103825-103835 direct CBDMP to: maintain an ongoing birth defects monitoring program statewide, track birth defects and trends, evaluate whether environmental hazards are associated with birth defects, investigate other possible birth defect causes, develop birth defect prevention strategies, and conduct interview studies about causes. The CBDMP currently conducts systematic surveillance for all birth defects in 10 counties: Fresno, Kern, Kings, Madera, Merced, Orange, San Diego, San Joaquin, Stanislaus, and Tulare.

Description of Change:

CDPH will shift the surveillance of birth defect activities from the California Birth Defects Monitoring Program Fund to the Genetic Disease Testing Fund. Existing statute allows for the GDTF to be used for birth defects surveillance purposes as part of Hereditary Diseases/Congenital Defects efforts, per Health and Safety Code 124977 (d)(3), 124980 and 125000. This shift will better align the birth defects surveillance activities with the broader Genetic Disease Screening Program.

Discretionary: No

Reason for Adjustment/Change: GDSP will conduct birth defects surveillance activities from the Genetic Disease Testing Fund. Shifting the activities from the Birth Defects Monitoring Program Fund to the Genetic Disease Testing Fund (Fund 0203) will better align the birth defects surveillance activities with the broader Genetic Disease Screening Program.

Fiscal Impact (Range) and Fund Source(s): The birth defects surveillance activities will now be funded from the Genetic Disease Testing Fund (Fund 0203). The shift of surveillance activities from the Birth Defects Monitoring Fund (Fund 3114) to the Genetic Disease Testing Fund (Fund 0203) will result in reduced expenditures of \$1.8 million from the Birth Defects Monitoring Fund.

Existing (Significantly Changed) Assumptions/Premises

There are no Existing (Significantly Changed) Assumptions/Premises.

Unchanged Assumptions/Premises**Budget Change Proposal: Routine Screening for Pompe and Mucopolysaccharidosis type I to Support Senate Bill (SB) 1095: Expanding California's Newborn Screening Program and Second-Tier Testing*****Newborn Screening for Pompe Disease and Mucopolysaccharidosis type I***

Background: SB 1095 (Chapter 393, Statutes of 2016) established Health and Safety Code section 125001(d) and required the CDPH/GDSP to expand statewide screening of newborns by adding new tests within two years of the disease screen being adopted by the federal RUSP. At the time the bill was enrolled, there were two disorders on the RUSP that were not on the California Newborn Screening panel, Mucopolysaccharidosis type I (MPS-I) and Pompe disease, which were added to the RUSP in 2016 and 2015, respectively. Therefore, as specified in state statutes, CDPH is required to add these disorders to the California NBS panel by August 26, 2018.

The 2017 Budget Act included \$2.25 million in one-time Local Assistance expenditure authority and \$139,000 in State Operation expenditure authority to plan, prepare for, and add the additional required screenings to the NBS panel to meet the August 2018 deadline. These increases only cover costs for the initial start-up activities related to enhancements for the Screening Information System and support of initial testing method development.

Description of Change: Once the disorders are added to the NBS panel in August 2018, the CDPH/GDSP will need to perform routine testing of the new disorders, and fully evaluate, validate, and approve the Food and Drug Administration (FDA) test kit before it is rolled out to the regional laboratories to perform the actual screening workload. The FDA test kit is not expected to be approved until the end of 2019. Even after approval of the FDA test kit and rollout to the regional laboratories, CDPH/GDSP will need to perform repeat testing on sample sizes to ensure accuracy, quality control review, and patient result reporting.

CDPH/GDSP is requesting 15 positions to address the routine testing and ongoing workload associated with the addition of MPS-I and Pompe disease. An increase in Local Assistance expenditure authority will be required beginning FY 2018-19 to purchase the consumables, supplies, and reagents related to the ongoing screening and testing activities.

Discretionary: No

Reason for Adjustment/ Change: SB 1095 required CDPH/GDSP to add MPS-I and Pompe disease to the NBS panel within two years. Screening is set to commence

August 2018 and will require an increase in expenditures needed to perform the routine and ongoing workload for MPS 1 and Pompe disease screening.

Fiscal Impact (Range) and Fund Source(s): Approximately \$2.23 million in State Operations expenditure authority and an increase of \$1.5 million in Local Assistance expenditure authority in FY 2018-19. These additional ongoing costs will require a NBS fee increase of approximately \$12 per specimen, effective July 1, 2018. The fund source is the GDTF (Fund 0203).

Genetic Disease Laboratory Second Tier Testing - Workload

Background: The CDPH/GDSP works to improve the quality of testing by preventing false negative tests and keeping false positive test rates as low as possible. Incorporating new testing strategies to reduce false positive test rates to prevent unnecessary stress and anxiety for parents is vital. By coupling the primary screening method with a second linked test that is more specific than the original method, CDPH/GDSP can improve diagnostic specificity (fewer false positives) without reducing sensitivity (the rate of false negatives). A second-tier test uses the same blood specimen from the original test, eliminating that additional burden to families or hospital personnel, and measures additional metabolites that either strongly supports the presumption of a true positive case or shows that the patient does not have the disorder.

Using second-tier testing to increase positive predictive values of screening assays is a common standard of practice in most newborn screening laboratories. The effectiveness of second-tier testing on decreasing overall costs for the NBS Program has been tested and validated, and the results have been published by many researchers.

The 2017 Budget Act included a one-time increase of \$300,000 State Operations expenditure authority, and a one-time transfer of \$330,000 from Local Assistance to State Operations expenditure authority, for the purchase of mass spectrometry equipment and testing method development. These one-time increases provided expenditure authority for the initial start-up activities for second-tier testing.

Description of Change: CDPH/GDSP is requesting a permanent shift of \$460,000 from Local Assistance to State Operations to fund 3 positions to perform the ongoing second-tier testing work that will begin in FY 2018-19.

Discretionary: Yes

Reason for Adjustment/ Change: The increase in State Operation expenditure authority is needed to perform the routine and ongoing workload for second-tier testing.

Fiscal Impact (Range) and Fund Source(s): A transfer of \$460,000 expenditure authority from Local Assistance to State Operations from the GDTF (Fund 0203).

Discontinued Assumptions/Premises

Budget Change Proposal - Newborn Screening Program (SB 1095)

The 2017 Budget Act included \$2.25 million in one-time Local Assistance expenditure authority and \$139,000 in State Operations expenditure authority to plan, prepare for, and add MPS-I and Pompe disease to the NBS panel to meet the August 2018 deadline. The fund source is the GDTF (Fund 0203).

Genetic Disease Laboratory Second Tier Testing

State Operations expenditure authority in FY 2017-18 reflects a one-time increase of \$300,000 and a one-time transfer of \$330,000 expenditure authority from Local Assistance to State Operations. It is estimated that cost savings associated with Second-Tier Testing beginning FY 2018-19 would be \$380,000 annually. The fund source is the GDTF (Fund 0203).

III. Appendices

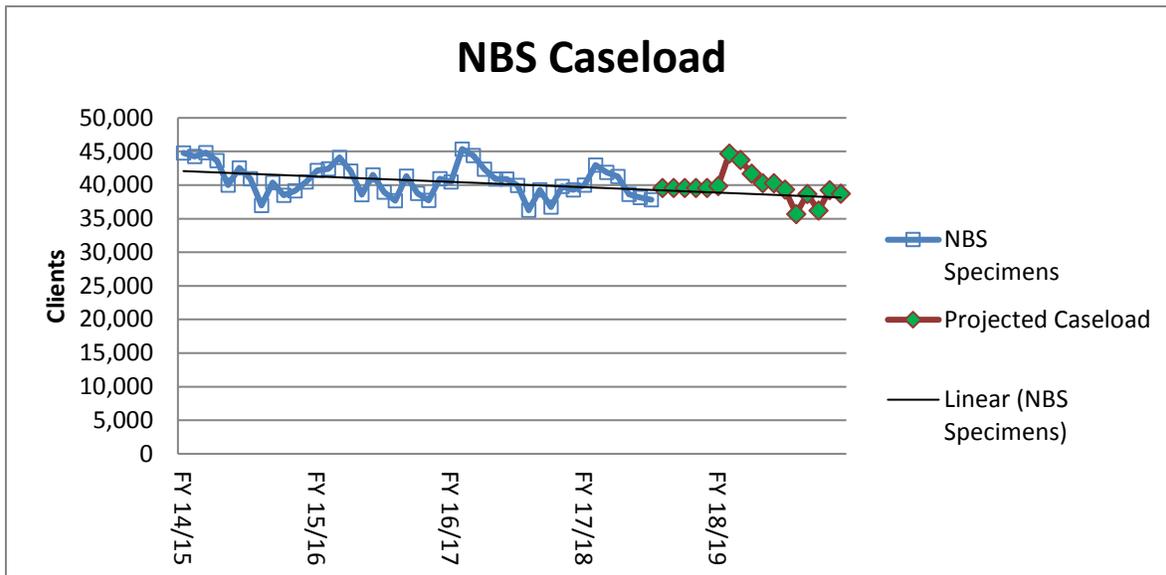
Appendix A: NBS Assumptions and Rationale

1. Contract Laboratories

Overview: Laboratory testing of specimens is performed at regional screening laboratories contracted by the state to screen newborns for 75+ specific genetic disorders. Costs include laboratory services for processing genetic screening tests. Screening laboratories ascertain the possible presence of a birth defect or a congenital disorder; a screening test is not diagnostic, and additional follow-up is likely to be required for a case that has an initial positive or questionable screening test result. The state contracts with several regional contract laboratories that are paid on a per specimen basis.

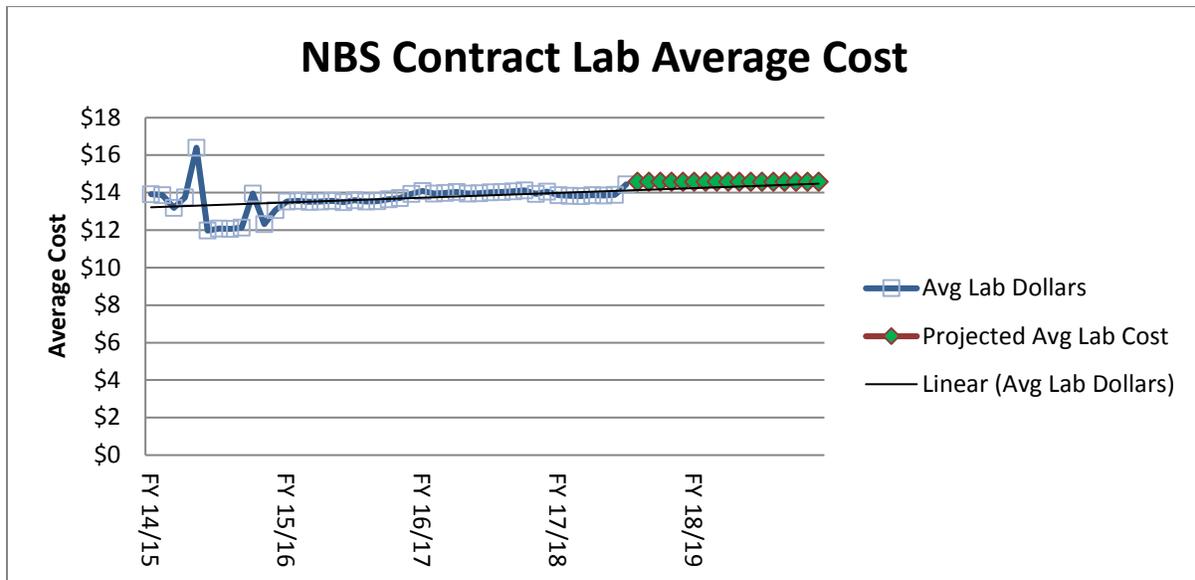
Costs associated with Contract Laboratories and Technical and Scientific supplies are both driven by the total number of clients NBS serves. The total caseload is determined as a percentage of the DRU's projected number of live births. This estimate assumes that 99 percent of the DOF/DRU projected births will participate in the NBS program in FY 2017-18 and 2018-19.

Total Caseload – CDPH/GDSP estimates current year caseload will total 478,679, a decrease of 7,060 or 1.5 percent compared to the FY 2016-17 actual total caseload of 485,739. Caseload in FY 2018-19 is estimated at 478,419, which is a decrease of 260 or 0.05 percent compared to the current year estimate. This year over year change is due to the DOF/DRU's projected number of live births, CDPH/GDSP assumes that up to 99 percent of births will participate in the NBS program each year. The following chart shows the actual NBS cases by month, along with our projected numbers for the remainder of the current year and budget year.

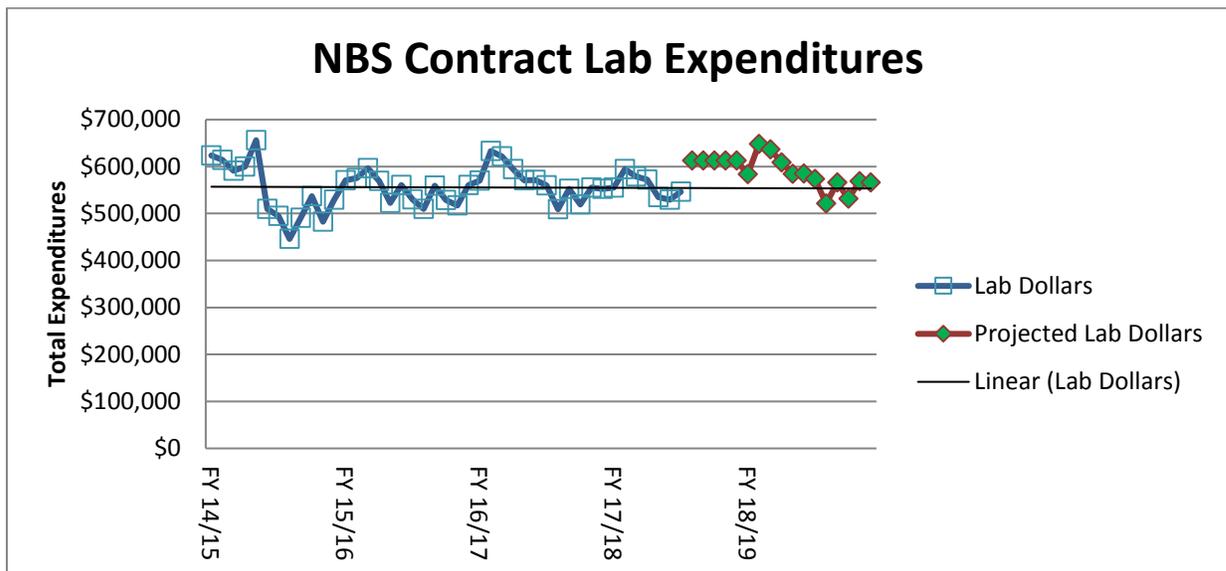


Contract Laboratory Average Cost Projections - CDPH/GDSP estimates current year average laboratory cost per participant will be \$14.57, which is an increase of \$0.55 or 4 percent compared to the FY 2016-17 actual average laboratory cost per participant of \$14.02. Average

laboratory cost per participant in FY 2018-19 is estimated at \$14.57, which is no change compared to the current year estimate. The increase is due to the decrease in caseload which cause the cost per specimen to increase.



Contract Laboratory Total Cost Projections – CDPH/GDSP estimates current year contract laboratory costs to total \$6.98 million, which is an increase of \$166,000 or 2.4 percent compared to FY 2016-17 actual contract laboratory costs of \$6.81 million. FY 2018-19 contract laboratory costs are projected to be \$6.98 million which is virtually no change compared to the current year.



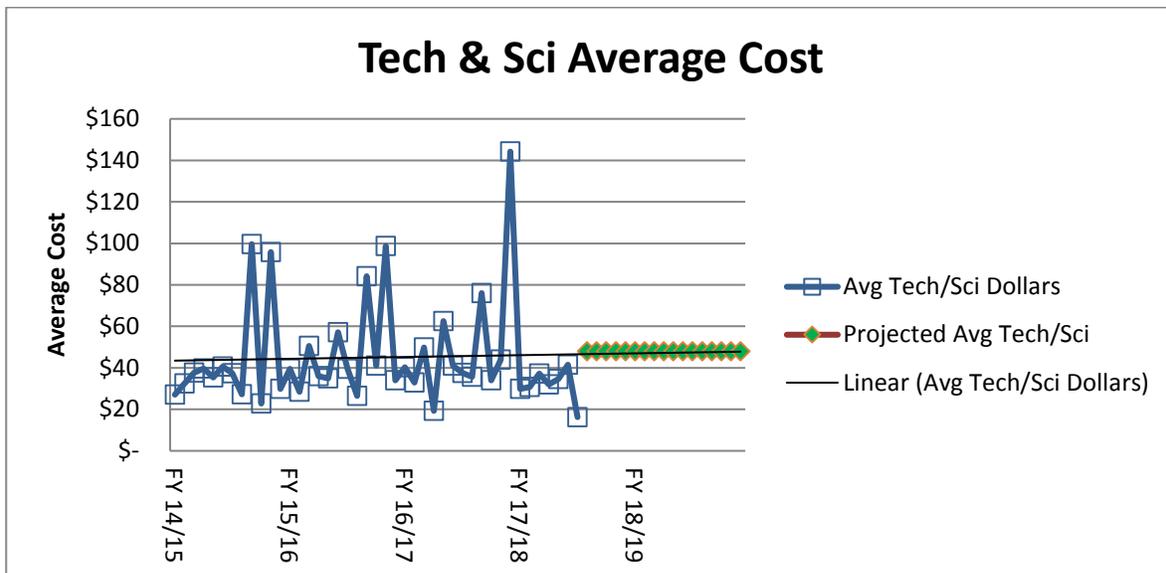
2. Technical and Scientific

Overview: Costs associated with specimen screening include: reagents kits, supplies, processing, and limited maintenance and support (as it directly relates to the reagents) of

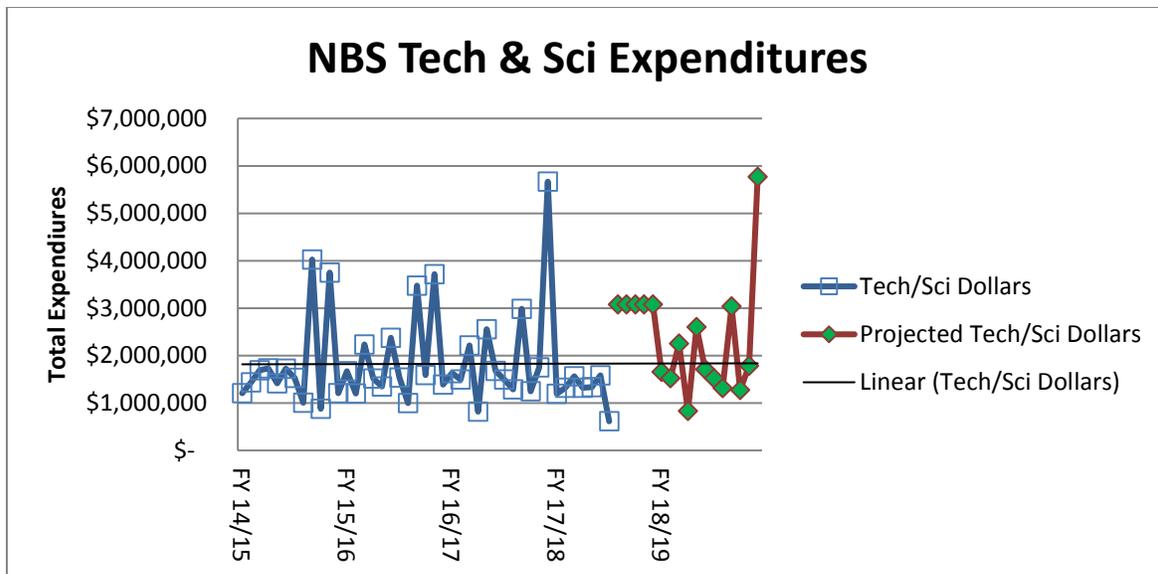
laboratory equipment that is with the contract laboratories. In addition, there are minimal fixed costs associated with specimen screening including: laboratory supplies, blood specimen filter paper, blood specimen storage, and costs for special packaging for blood specimen transport, etc. Reagent kits, which are the majority of the Technology & Scientific costs, are purchased in lots based on anticipated caseload volume. Reagents vary in cost depending upon the type of screening performed.

Technical and Scientific Caseload: See Appendix A 1

Technical and Scientific Average Cost – CDPH/GDSP estimates current year average Technical and Scientific cost per participant will be \$50.83, a slight decrease of \$0.30 or 0.59 percent compared to FY 2016-17 actual average Technical and Scientific cost per participant of \$51.13. Average laboratory cost per participant in FY 2018-19 is estimated at \$50.83, which is no change compared to the current year estimate.



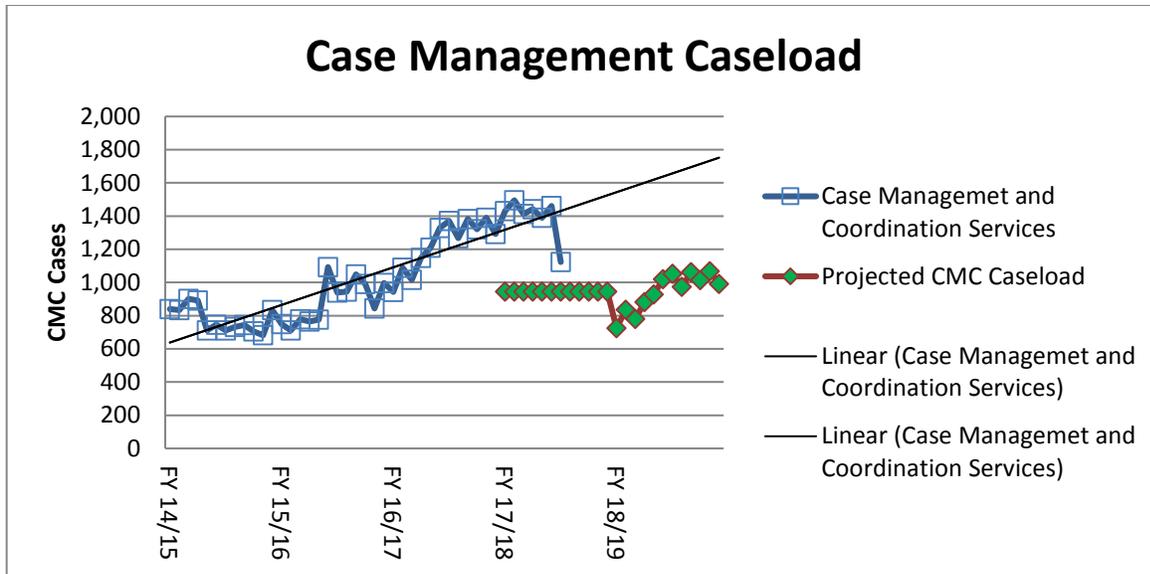
Technical and Scientific Total Cost – CDPH/GDSP estimates current year Technical and Scientific costs to total \$24.3 million, which is a decrease of \$506,376 or 2.03 percent compared to FY 2016-17 actual technical and scientific costs of \$24.8 million. For FY 2018-19 the Technical and Scientific costs are estimated to be \$25.3 million, which is an increase of \$955,050 or 3.78 percent compared to the current year. The current year decrease in cost is attributable to caseload decrease. The increase in the budget year is due to the additional costs associated with consumables, reagents, DNA sequencing and supplies needed for the new disorders Pompe and MPS1 Screening.



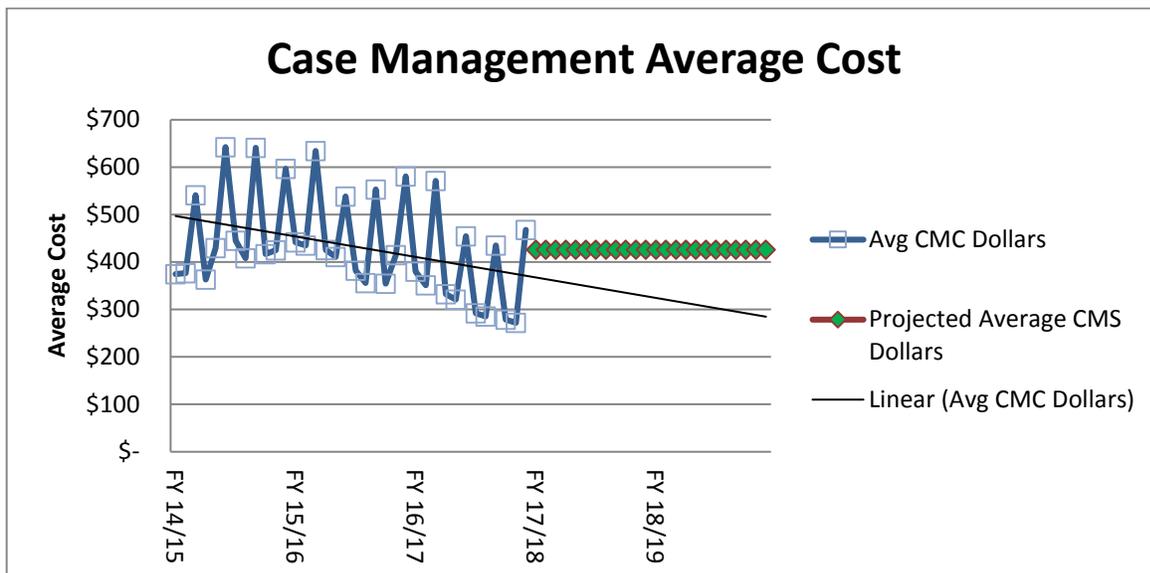
3. Case Management and Coordination Services:

Overview- Services provided to infants who screen initial positive or have questionable screening test results for the 75+ genetic disorders screened. These services include: time-sensitive coordination for specific confirmatory testing, family consultation – including consultation with the infant’s pediatrician, genetic disease counseling, family educational services, and coordinated care referrals to specialized medical institutions. The NBS Area Service Centers (ASC) provide critical coordination and tracking services to ensure appropriate diagnostic measures are completed, and that affected infants are provided with appropriate medical care and receive treatment within a critical timeframe. The ASCs are reimbursed based on caseload and the type of service performed; this funding supports a required core team of clinical professionals. Costs vary by ASC, dependent upon the geographical location as well as the volume of caseload served.

Case Management and Coordination Services (CMCS) Caseload – CDPH/GDSP estimates current year CMCS caseload will total 11,337, which is a decrease of 3,422 or 23 percent compared to FY 2016-17 actual CMCS caseload of 14,878. CMCS caseload in FY 2018-19 is estimated at 11,331, which is a decrease of 6 or 0.05 percent compared to the current year estimate. The decrease in both current year and budget year is attributed to the decrease in projected caseload which is based on the prior three fiscal years’ percentages of infants who screen initial positive or have questionable screening test results.

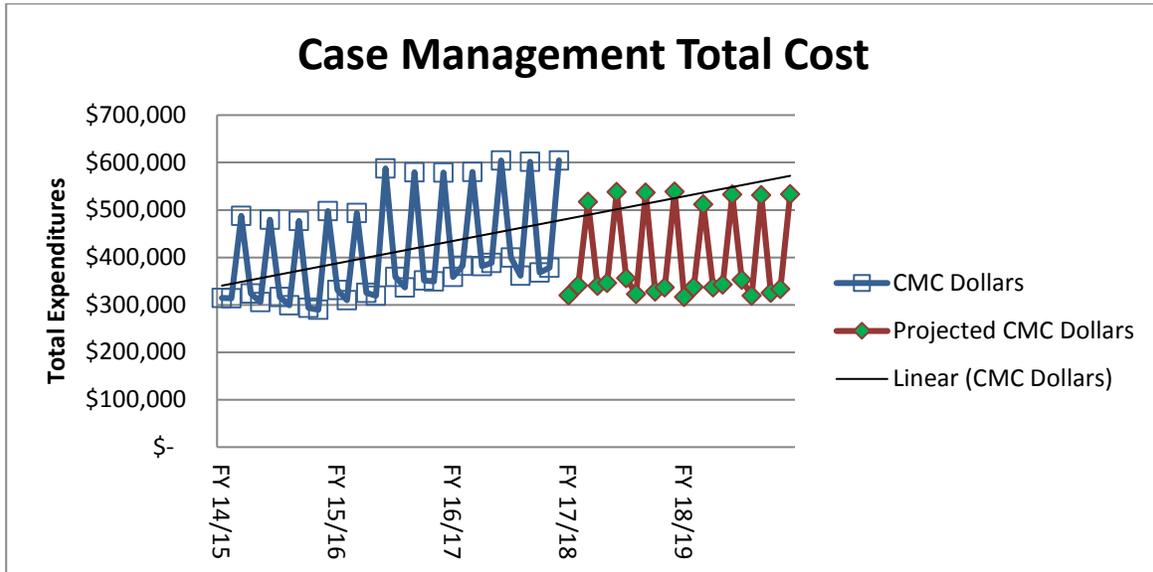


Case Management and Coordination Services (CMCS) Average Cost - CDPH/GDSP estimates current year average CMCS cost per participant will be \$434.92, which is an increase of \$68.35 or 15.71 percent compared to FY 2016-17 actual average CMCS cost per participant of \$366.57. With the reduction of the number of positives, the average cost increases because there are some static charges associated with case management which do change based on caseload. Average CMCS cost per participant in FY 2018-19 is estimated at \$434.92, which is no change compared to the current year estimate. CMCS costs are a combination of fixed costs and incremental (per case) reimbursement.



Case Management and Coordination Services (CMCS) Total Cost - CDPH/GDSP estimates current year CMCS costs to total \$4.7 million, which is a decrease of \$589,196 or 10.89 percent compared to FY 2016-17 actual CMCS total costs of \$5.4 million. The decrease is caused by

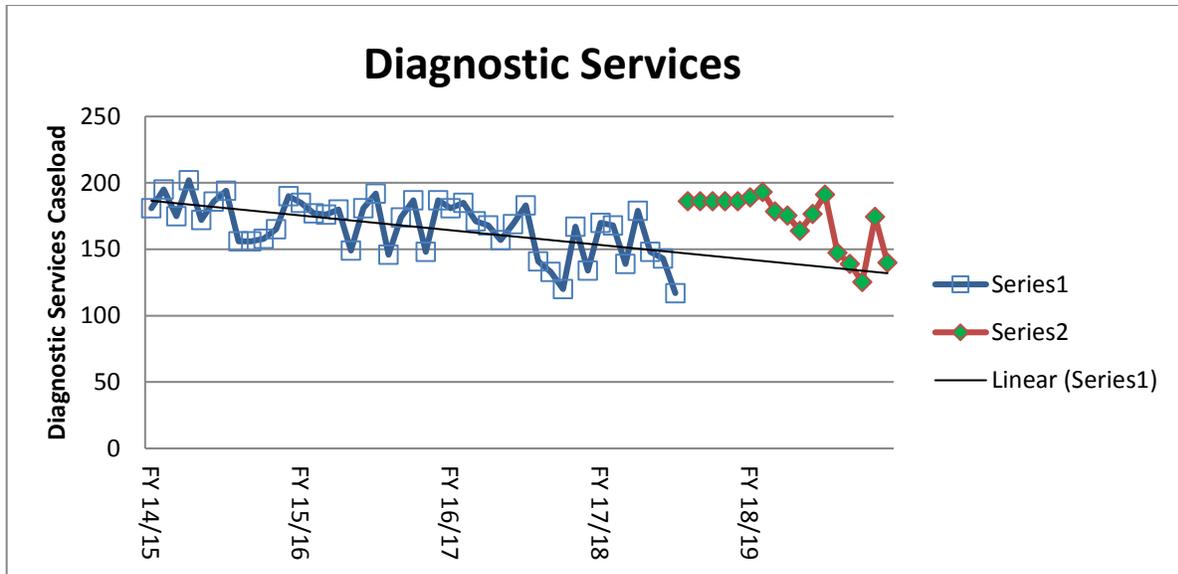
the projected decrease in caseload. CMCS costs in FY 2018-19 are estimated to total \$4.8 million, which is virtually no change compared to the current year estimate.



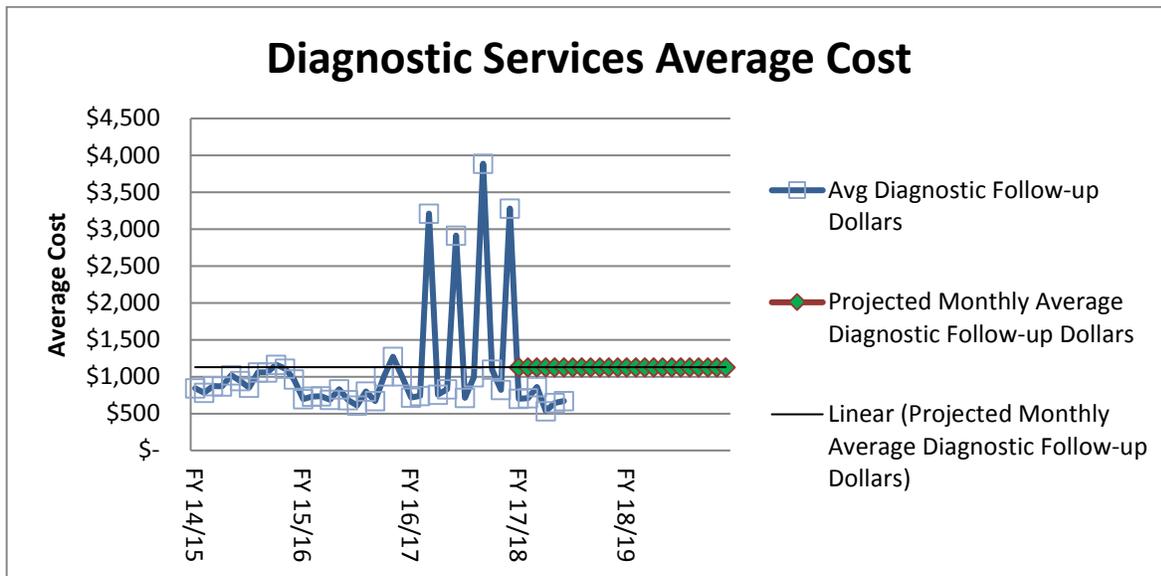
4. Diagnostic Services:

Overview- Diagnostic Services are for infants who require extended monitoring while undergoing confirmatory testing and diagnosis. Clinical outcome data is collected on infants once diagnosis is made as a means of tracking, confirming, evaluating, and refining program standards. Services include: coordination with the NBS ASC and CDPH/GDSP for ongoing medical care, ensuring the establishment of infant treatment plans through specialty care hospitals and university medical centers specializing in the genetic disorders such as sickle cell anemia, cystic fibrosis, PKU, beta thalassemia, alpha thalassemia, and various neurologic, metabolic, and endocrine disorders, etc. Services are provided through Special Care Centers, which are composed of highly specialized medical teams; cost is based on per case reimbursement.

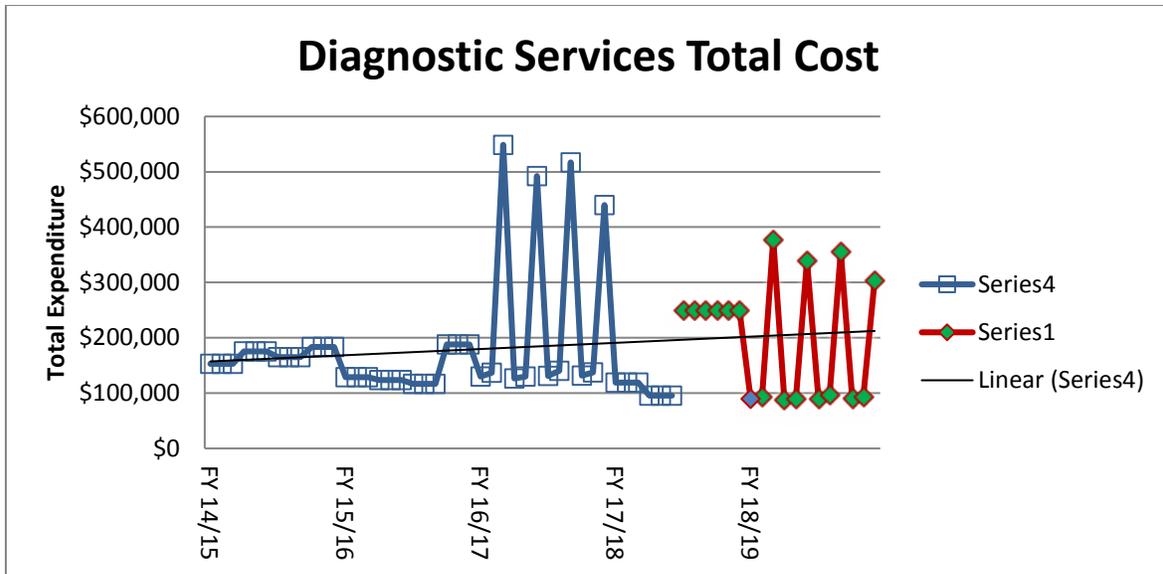
Diagnostic Services Caseload – CDPH/GDSP estimates current year Diagnostic caseload will total 1,995, which is an increase of 86 or 4.5 percent compared to FY 2016-17 actual Diagnostic Services caseload of 1,909. Diagnostic caseload in FY 2018-19 is estimated at 1,964, which is a decrease of 1 or 0.05 percent compared to the current year estimate. The change in the current year and the budget is due largely to fluctuating projected caseload. The following chart shows the actual Diagnostic Services cases by month, along with our projected numbers for the remainder of the current year and budget year.



Diagnostic Services Average Cost - CDPH/GDSP estimates current year average Diagnostic Services cost per participant will be \$1,128.93, which is a decrease of \$475 or 29.6 percent compared to FY 2016-17 actual average Diagnostic Services cost per participant of \$1,603.89. Average Diagnostic Services cost per participant in FY 2018-19 are estimated at \$1,128.93, which is no change compared to the current year estimate



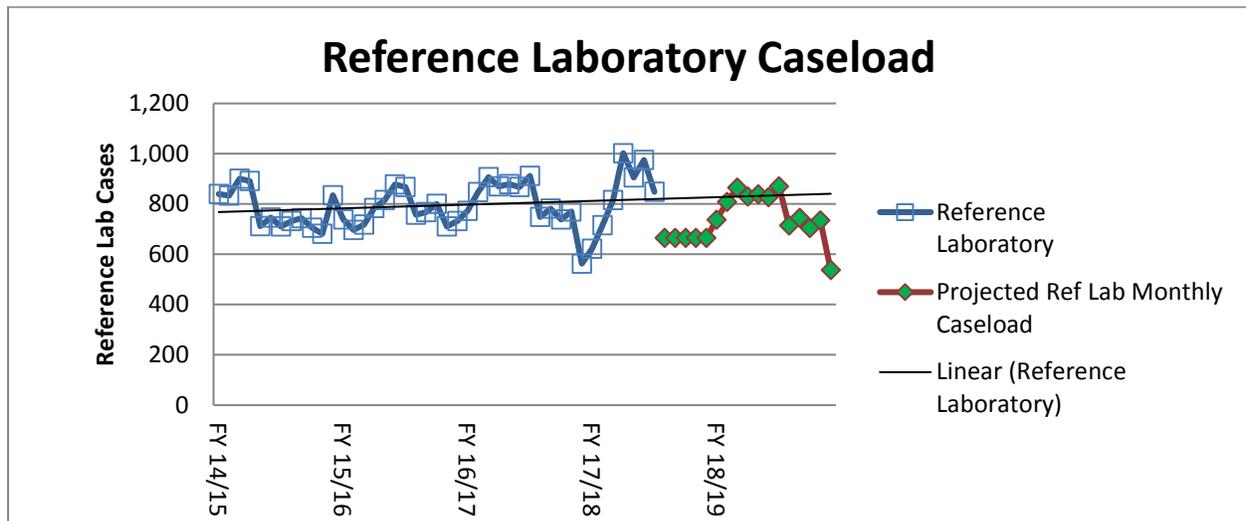
Diagnostic Services Total Cost - CDPH/GDSP estimates current year Diagnostic Services costs to total \$2.1 million, which is a decrease of \$919,830 or 30 percent compared to FY 2016-17 actual Diagnostic Services total costs of \$3.1 million. Diagnostic Services costs in FY 2018-19 are estimated to total \$2.1 million, which is virtually no change compared to the current year estimate.



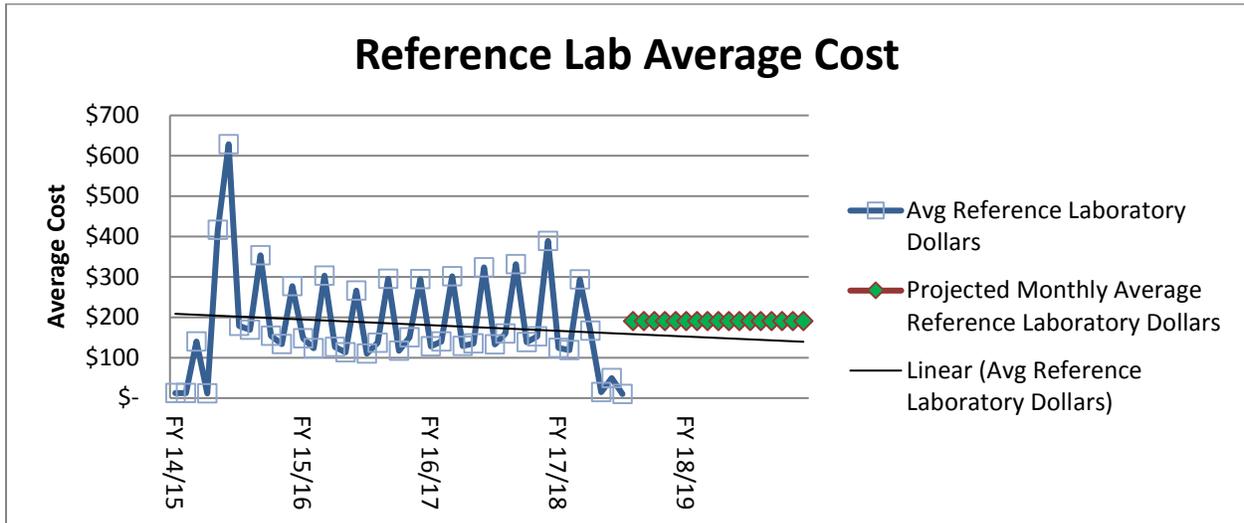
5. Reference Laboratory Cases:

Overview- Cases that result in a positive screening test are referred for diagnostic testing at various confirmatory laboratories. Costs include medical and confirmatory diagnostic tests, as well as fixed costs for lab technical support, and expert medical consultation services for rare genetic abnormalities. Reference Laboratories are reimbursed on a cost per test basis.

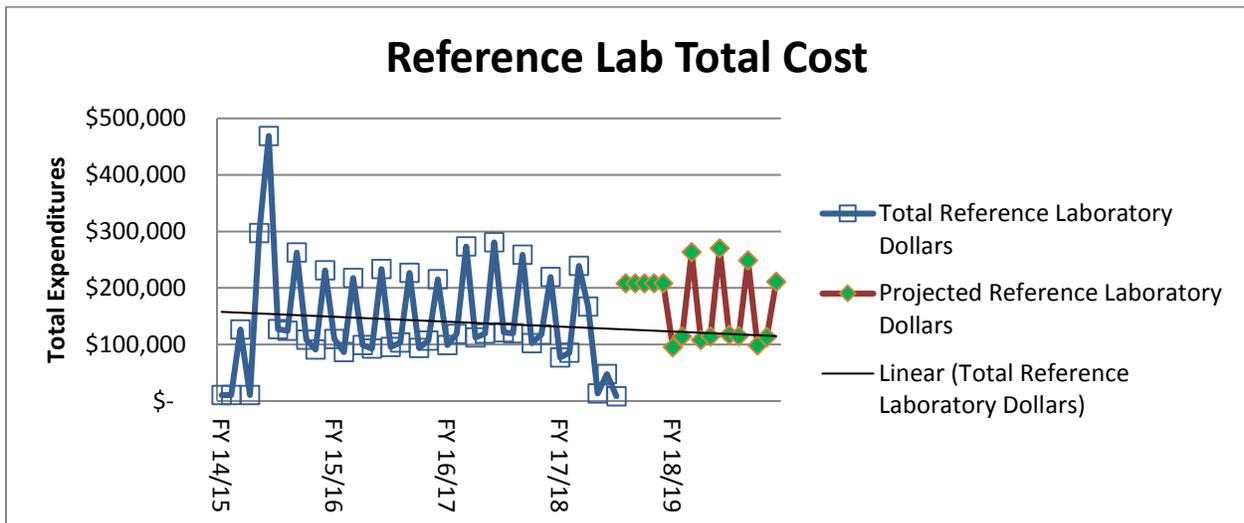
Reference Laboratory Caseload – CDPH/GDSP estimates current year Reference Laboratory caseload will total 9,212, which is a decrease of 445 or 4.6 percent compared to FY 2016-17 actual Reference Laboratory caseload of 9,657. Reference Laboratory caseload in FY 2018-19 is estimated at 9,207, which is a decrease of 5 or 0.05 percent compared to the current year estimate. The decrease in the current year and the budget year is due to the decrease in projected caseload. The following chart shows the actual Reference Laboratory cases by month, along with projected caseload for the remainder of the current year and budget year.



Reference Laboratory Average Cost – CDPH/GDSP estimates current year Reference Laboratory average cost per participant will be \$194.23, which is a decrease of \$6.81 or 3.39 percent compared to FY 2016-17 Reference Laboratory actual average cost per participant of \$201.04. Reference Laboratory average cost per participant in FY 2018-19 is estimated at \$194.23, which is no change compared to the current year estimate. The decrease in the current year and the budget year is due to the decrease in projected caseload.



Reference Laboratory Total Cost – CDPH/GDSP estimates current year Reference Laboratory costs to total \$1.7 million, which is a decrease of \$262,477 or 13.5 percent compared to FY 2016-17 actual Diagnostic Services total costs of \$1.9 million. The decrease is attributed to the projected decrease in Reference Laboratory caseload. Reference Laboratory costs in FY 2018-19 are estimated to total \$1.9 million which is an increase of \$188,000 or 10.1 percent compared to the current year estimate. The increase is attributed to the \$96,000 additional confirmatory expenditure, the return of \$110,000, a third portion of \$330,000 transfer to State Operations in FY 2017-18 as part of the proposed Budget Change Proposal.



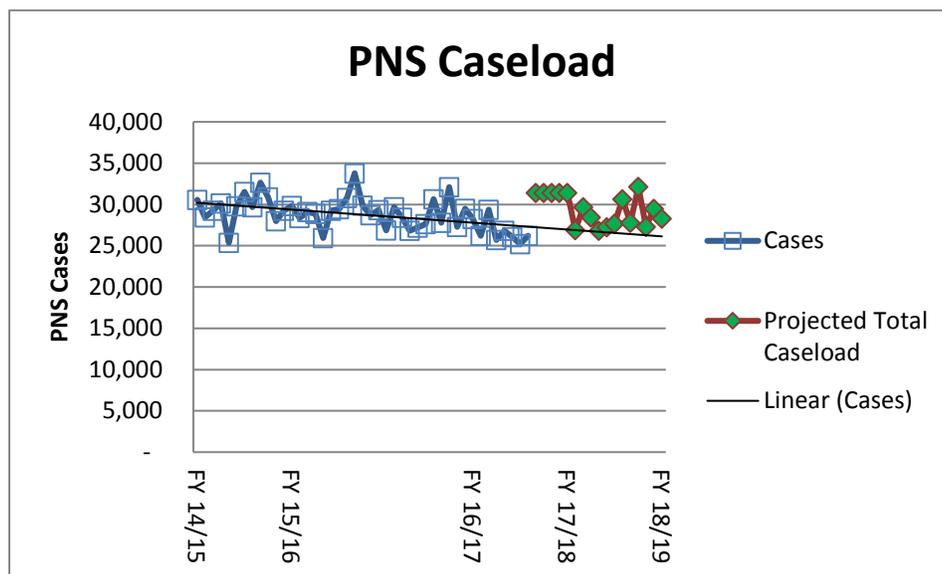
APPENDIX B: Prenatal Screening Program Assumptions and Rationale

1. Contract Laboratories:

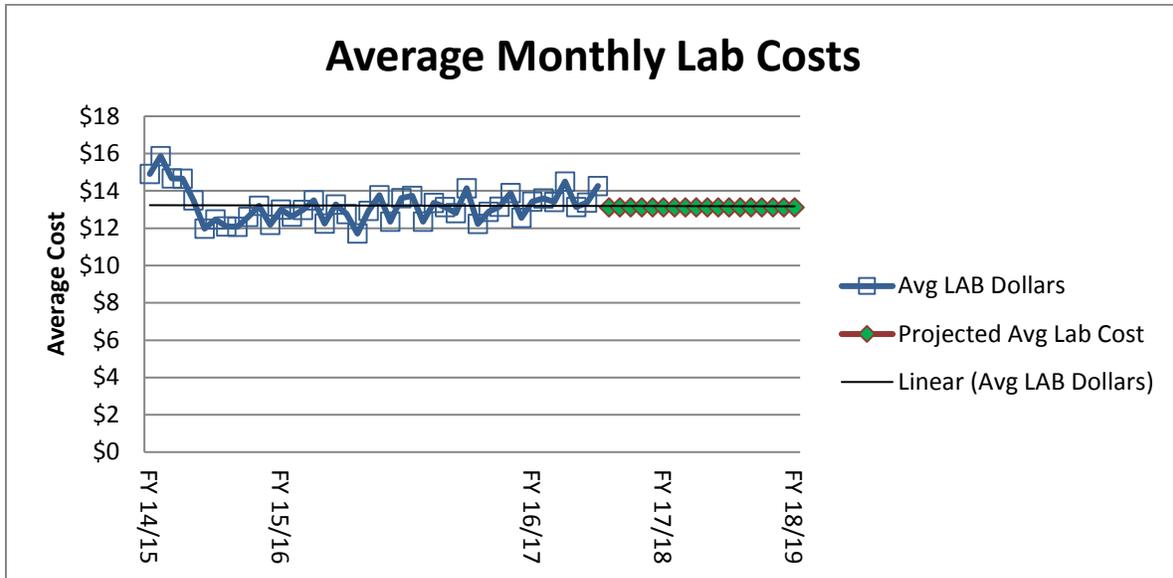
Overview - Laboratory testing to screen pregnant women for genetic and congenital disorders, such as Trisomy 21, Trisomy 18, Smith-Lemli-Opitz Syndrome (SLOS), and Neural Tube Defects. Costs include laboratory services for performing prenatal genetic screening tests. The screening test estimates the chance or risk that the fetus has a certain birth defect; the screening provides a risk assessment but not a diagnosis. In prior years the state contracted with 7 regional laboratories, currently the state contracts with five regional contract laboratories that are paid on a per specimen basis.

In the past CDPH/GDSP estimated the number of 1st trimester and 2nd trimester screens performed separately in the estimate. This is because the average cost of the 1st trimester screen was substantially less than the cost of the 2nd trimester screens. Currently however the cost of each test is the same, as such GDSP will estimate the average cost to provide both screens without differentiating between the two tests a participant may receive.

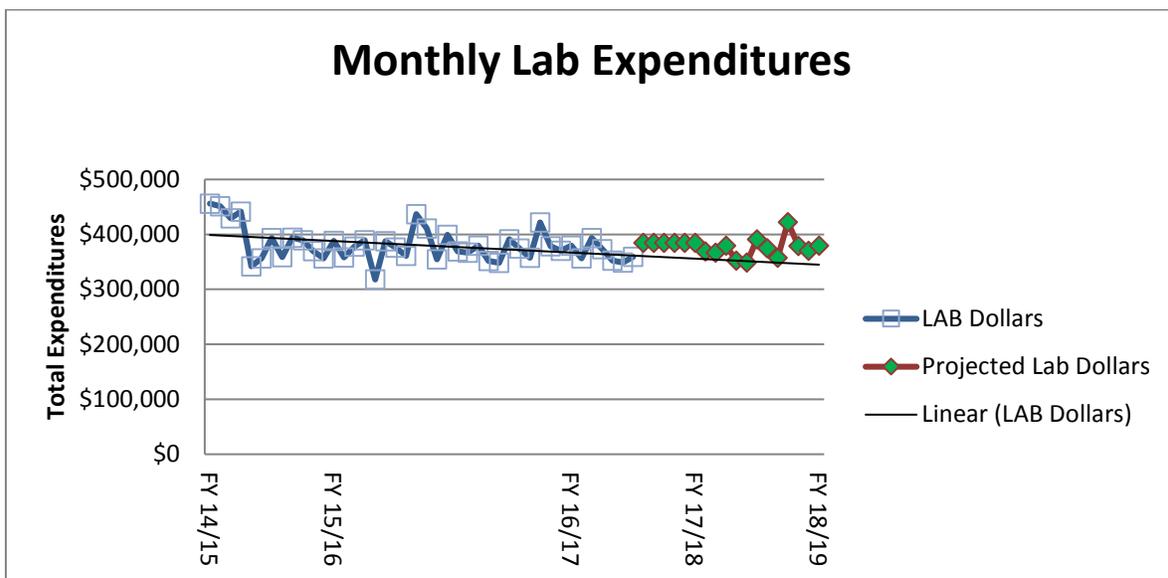
Total Caseload – CDPH/GDSP estimates current year caseload will total 342,532, which is a decrease of 414 or 0.1 percent compared to FY 2016-17, actual total caseload of 342,118. Caseload in FY 2018-19 is estimated at 342,347 which is a decrease of 185 or 0.05 percent compared to the current year estimate. The PNS program participation is estimated as a percentage of the DOF/DRU projected number of live births. CDPH/GDSP estimates that 71.4 percent (based from a three-year actual average) of the projected births will participate in the PNS program in FY 2017-18, and that the number of participants will remain constant in FY 2018-19. The FY 2018-19 projections does not increase with DOF/DRU birth rates because PNS participation has not remained constant as a percent of DRU birth projections due to women choosing other types of prenatal testing offered outside of the State program. The following chart shows the actual PNS cases by month, along with our projected numbers for the remainder of the current year and budget year.



Contract Laboratory Average Cost Projections – CDPH/GDSP estimates current year average laboratory cost per participant will be \$13.12, which is no changes compared to FY 2016-17 actual average laboratory cost per participant of \$13.12. Average laboratory cost per participant in FY 2018-19 is estimated at \$13.12, which is no change compared to current year estimate.



Contract Laboratory Total Cost Projections – CDPH/GDSP estimates current year contract laboratory cost to total \$4.5 million, which is virtually no change compared to FY 2016-17 actual contract laboratory costs of \$4.5 million. Laboratory costs in FY 2018-19 are estimated to total \$4.5 million, which is virtually no change compared to the current year estimate. The steady costs are attributable to unchanging participation and average cost projections.

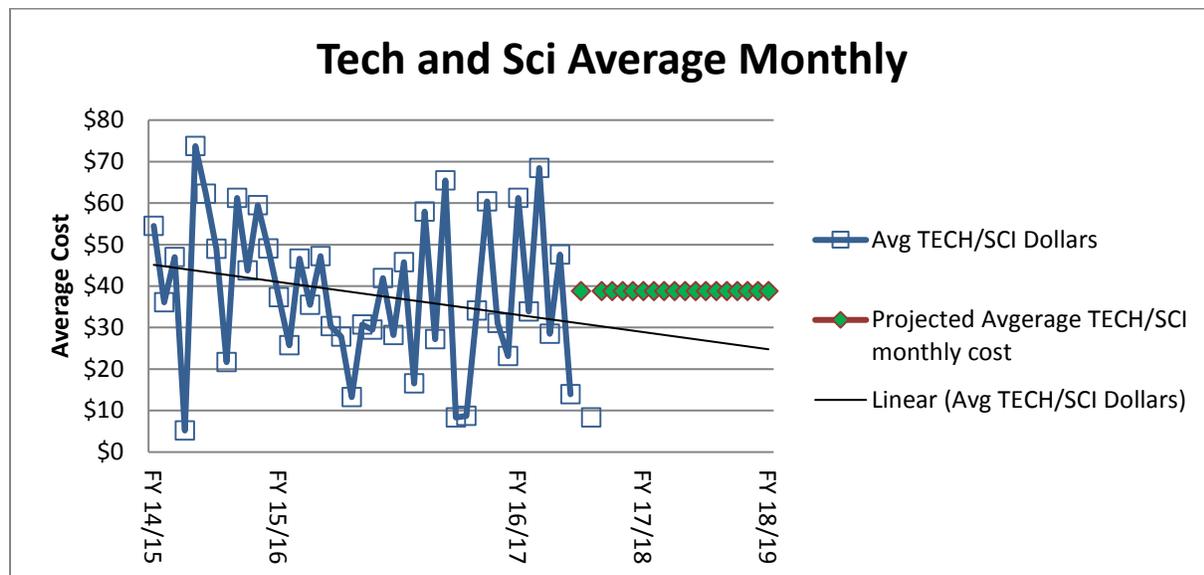


2. Technical and Scientific

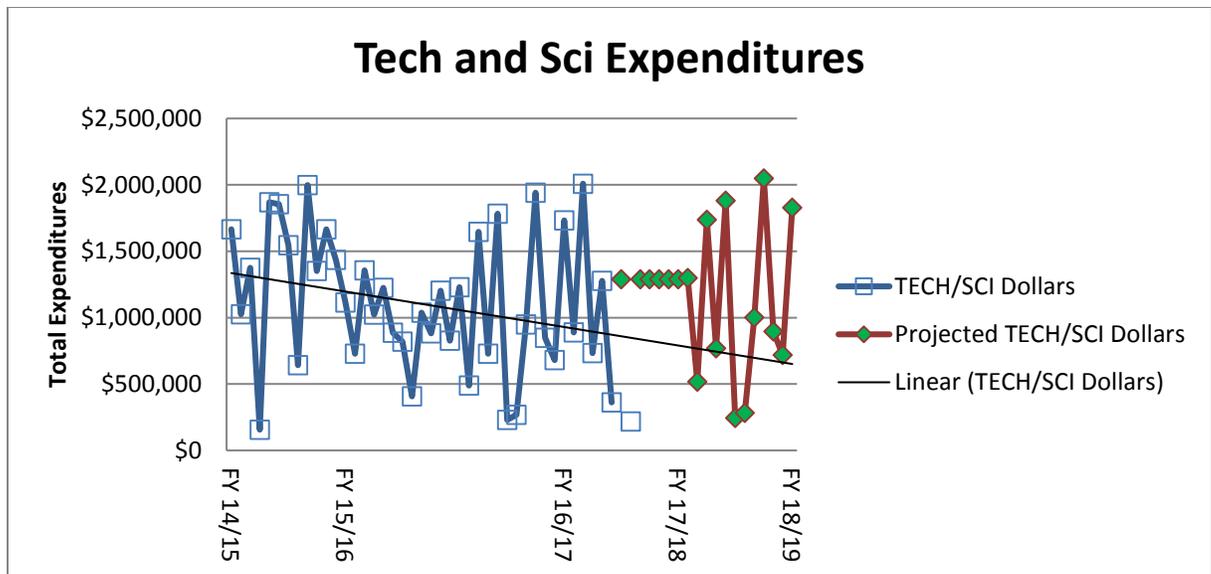
Overview - Costs associated with screening services provided at the laboratory include: reagent kits, limited maintenance and support (as it directly relates to the reagents) of laboratory equipment, supplies, and processing. In addition, there are several costs associated with screening including: blood specimen tubes, laboratory supplies, blood specimen storage, and costs for special packaging for blood specimen transport. Reagent kits, which are the majority of the Technology & Scientific costs, are purchased in lots based on anticipated caseload. Reagents vary in cost depending upon the type of screening performed.

Technical and Scientific Caseload: See appendix B 1

Technical and Scientific Average Cost – CDPH/GDSP estimates current year average Technical and Scientific cost per participant will be \$38.61, which is an increase of \$2 or 5.2 percent compared to FY 2016-17 actual average Technical and Scientific cost per participant of \$36.61. Average laboratory cost per participant in FY 2018-19 is estimated at \$38.61, which is no change compared to the current year estimate. The increase in the average cost is the result of increases in the cost of reagents and consumables.



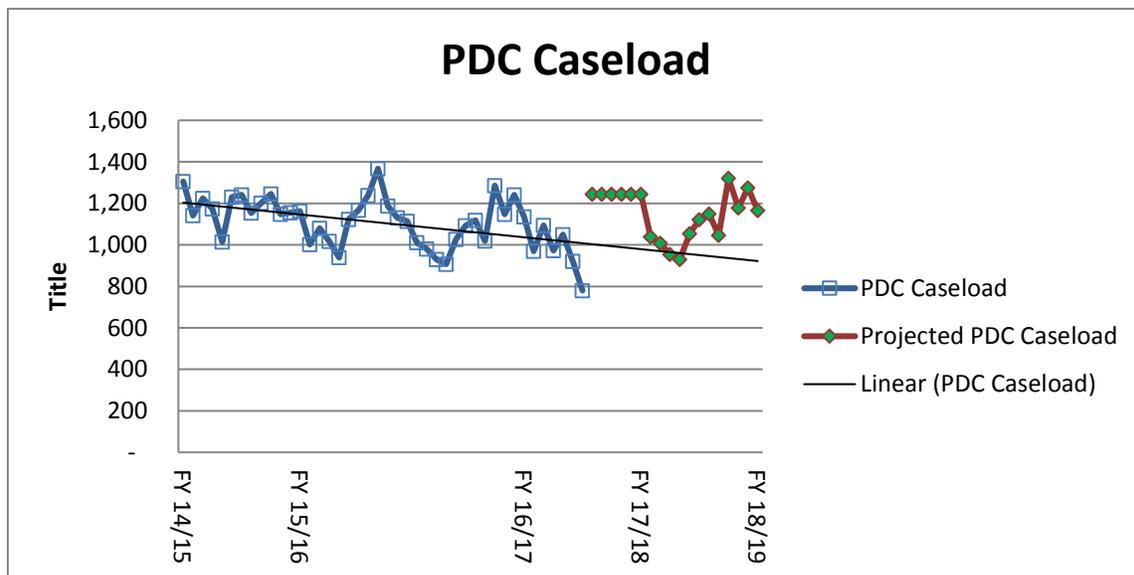
Technical and Scientific Total Cost – CDPH/GDSP estimates current year Technical and Scientific costs to total \$13.2 million, which is an increase of \$702,000 or 5.3 percent compared to FY 2016-17 actual technical and scientific costs of \$12.5 million. Technical and Scientific costs in FY 2018-19 are estimated to total \$13.2 million which is virtually no change compared to the current year estimate. The increases are due to the increase in average cost.



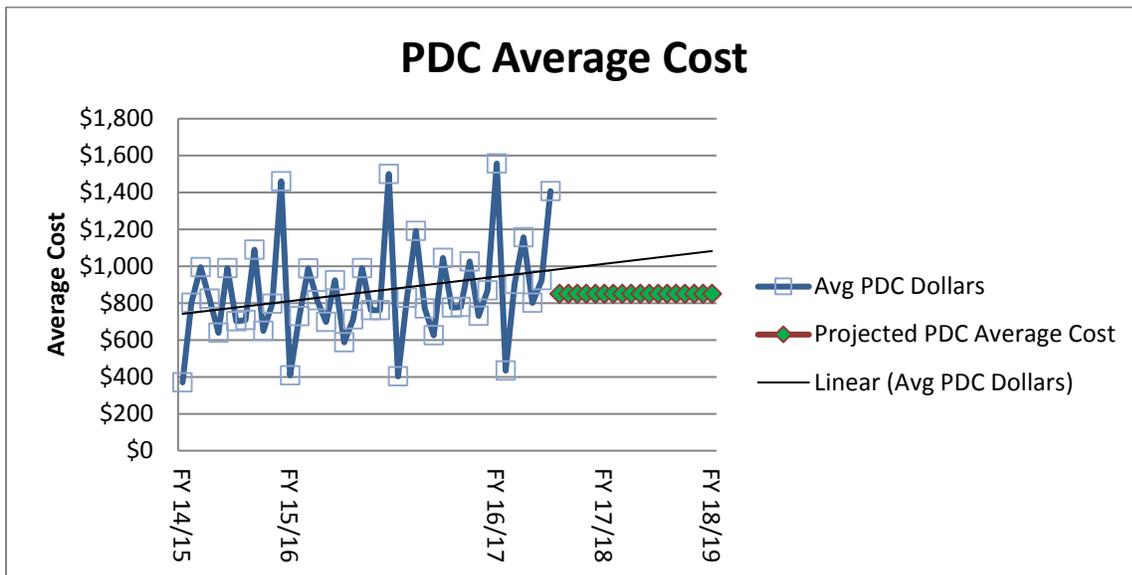
3. Prenatal Diagnostic Services Centers

Overview - Women with positive results are provided additional services, which include: confirmatory and diagnostic prenatal testing, genetic counseling, education, coordinated medical care referrals, and coordination and consultation with patient's physician, and specialty care providers. Services are provided through Prenatal Diagnostic Services Centers and are reimbursed per service type.

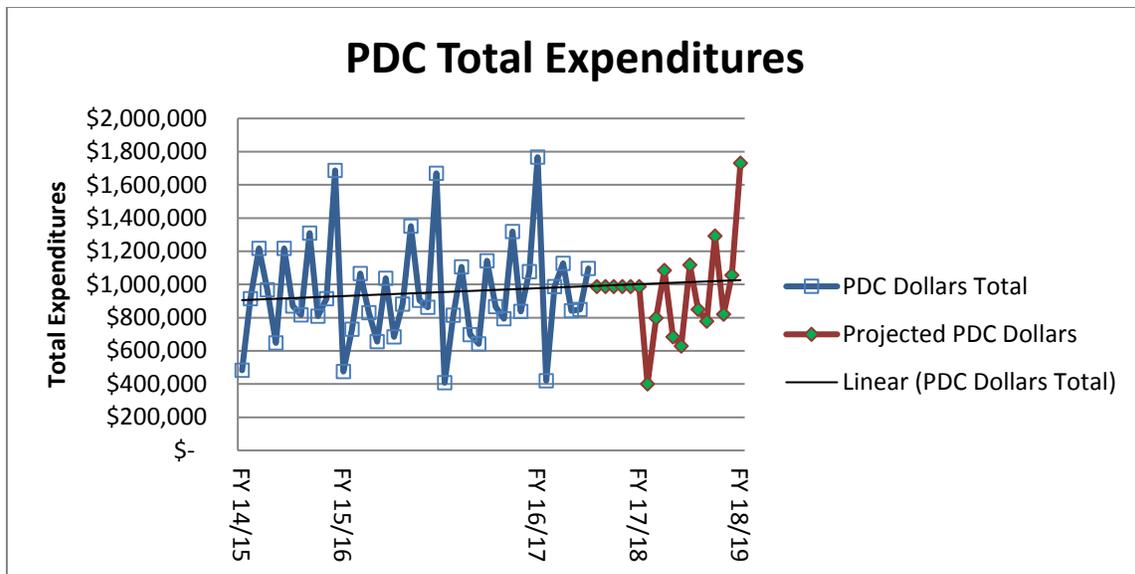
Prenatal Diagnostic Services Centers (PDC) Caseload – CDPH/GDSP estimates current year PDC caseload will total 13,246, which is an increase of 354 or 2.7 percent compared to the FY 2016-17 actual PDC caseload of 12,892. The increase is caused by a projected uptick in women choosing to further pursue diagnostic care. PDC caseload in FY 2018-19 is estimated to total 13,239, which is a decrease of 7 or 0.05 percent compared to the current year estimate.



Prenatal Diagnostic Services Average Cost – CDPH/GDSP estimates current year average PDC cost per participant will be \$848.97, which is a decrease of \$40.88 or 4.6 percent compared to FY 2016-17 actual average PDC cost per participant of \$889.85. Average laboratory cost per participant in FY 2018-19 is estimated at \$848.97, which is no change compared to the current year estimate. The reduction in average cost in the current year, which is projected to be sustained in the budget year, is the result of changes in the types of procedures used to diagnose genetic diseases. Procedures like Non-Invasive Prenatal Testing and Micro Array can be offered to women in lieu of more invasive and costly procedures, like amniocentesis. Women who would previously have declined PDC services are now choosing these non-invasive procedures.



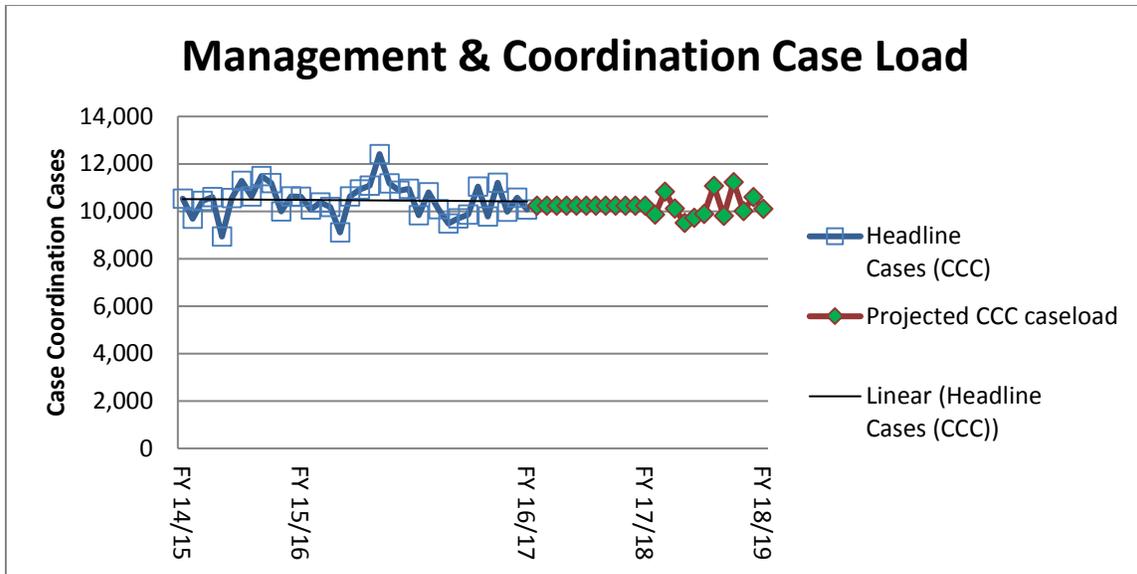
Prenatal Diagnostic Services Total Cost – CDPH/GDSP estimates current year PDC costs to total \$11.2 million, which is a decrease of \$226,000 or 2 percent compared to FY 2016-17 actual PDC total costs of \$11.5 million. PDC costs in FY 2018-19 are estimated to total \$11.2 million, which is virtually no change compared to the current year estimate. The change in total expenditures is attributable mainly to fluctuating projected PDC caseload.



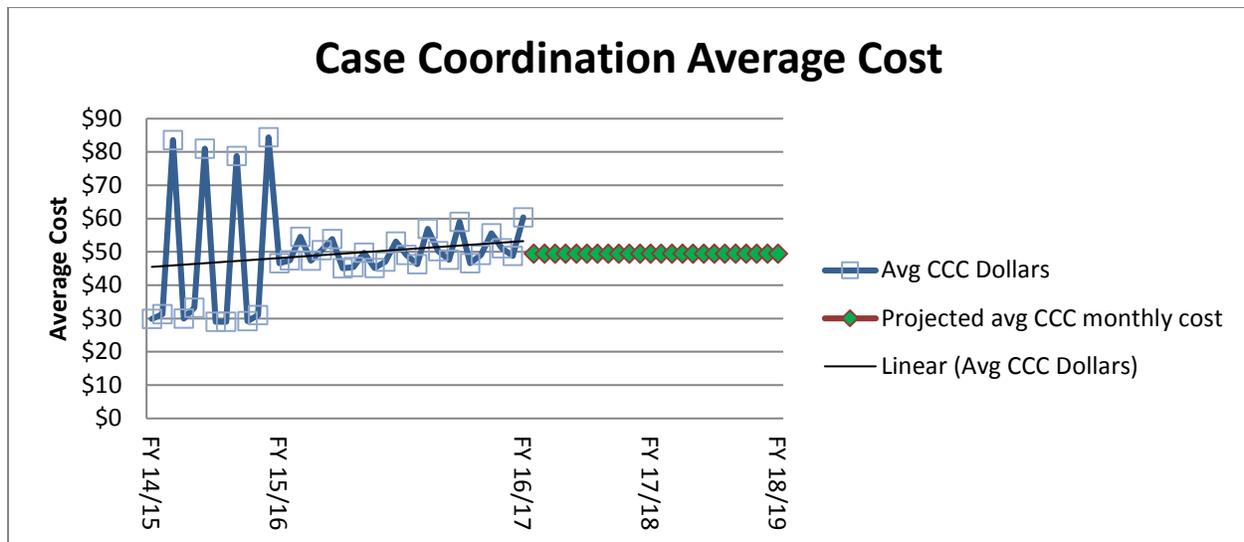
4. Case Management and Coordination Services:

Overview - Services provided to pregnant women who screen positive or have questionable results include coordination of first and second trimester screens and ultrasounds, identifying patients whose blood specimens were drawn too early or were inadequate, requiring additional blood draws. The PNS Area Service Centers (ASC) provide clinician and patient education and consultations; make referrals to Prenatal Diagnostic Centers for diagnostic and confirmatory tests, and genetic counseling; and track patients to ensure appointments are kept and patients seen within prescribed timeframes. Coordinators confirm and verify specific patient information as needed with the treating physician offices, and the Prenatal Diagnostic Centers. Costs are fixed for a required core team of medical professionals for the PNS ASC to ensure adequate personnel and infrastructure needs are always in place to provide for all cases referred. Costs associated with these services vary by ASC dependent upon the geographic location and thus the geographic distribution of caseload as well.

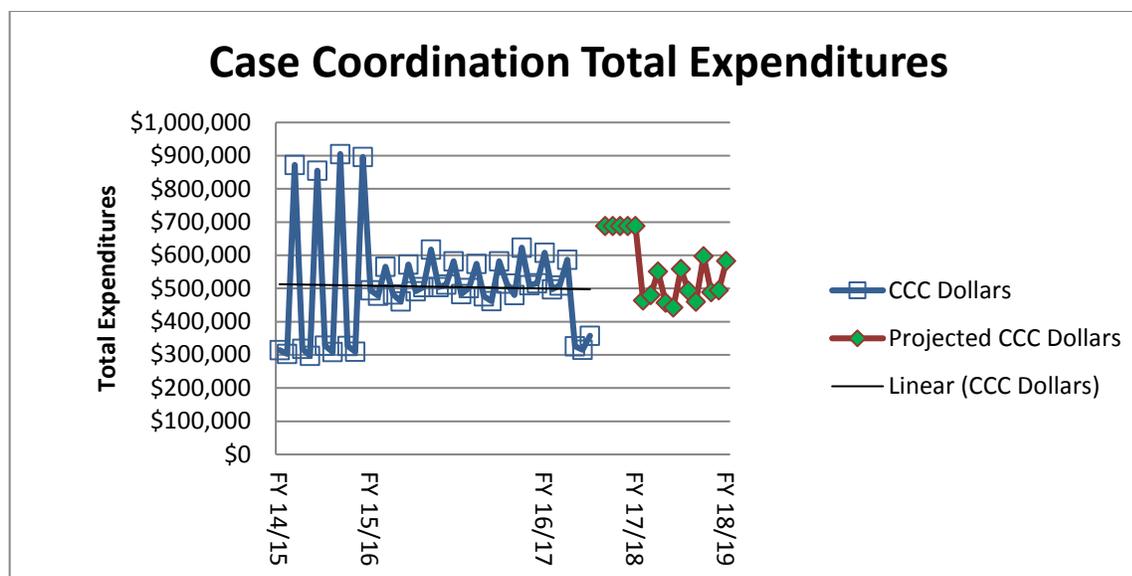
Case Management and Coordination Services (CMCS) Caseload - CDPH/GDSP estimates current year CMCS caseload will total 122,815, which is an increase of 371 or 0.3 percent compared to FY 2016-17 actual CMCS caseload of 122,444. CMCS caseload in FY 2018-19 is estimated at 122,748, which is decrease of 67 or 0.05 percent compared to the current year estimate. This is due largely to changes in the caseload, and CDPH/GDSP noted that the trend for CMCS caseload has remained relatively flat regardless of overall program participation. The following chart shows the actual CMCS cases by month, along with our projected numbers for the remainder of the current year and budget year.



Case Management and Coordination Services (CMCS) Average Cost - CDPH/GDSP estimates current year average CMCS cost per participant will be \$49.47, which is a decrease of \$2.22 or 4.3 percent compared to FY 2016-17 actual average CMCS cost per participant of \$51.69. Average CMCS cost per participant in FY 2018-19 is estimated at \$49.47, which is no change compared to the current year estimate. The decrease in the current year is attributable to a slight increase in caseload causing a decrease in average cost.



Case Management and Coordination Services (CMCS) Total Cost - CDPH/GDSP estimates current year CMCS costs to total \$6.1 million, which is a decrease of \$254,000 or 4.0 percent compared to FY 2016-17-16 actual CMCS total costs of \$6.3 million. CMCS costs in FY 2018-19 are estimated to total \$6.1 million, which is virtually no change compared to the current year estimate. The changes in the current year is attributable to a slight increase caseload causing a decrease in the average cost.



APPENDIX C: Revenue Projections

1. NBS Revenue

The Newborn Screening Program charges a fee of \$130.25 currently. Effective July 1, 2018, the NBS fee will increase by \$12 and the new fee would be \$142.25. In most cases the fee is paid to directly to CDPH/GDSP by hospitals. For births that occur outside of a hospital CDPH/GDSP does invoice the appropriate fee from the family of the infant or their insurance company. Since the majority of births happen within a hospital billing and receiving payment for NBS services is greatly streamlined and efficient. Past actual collection amounts indicate that CDPH/GDSP collects approximately 98 percent of all revenue related to providing NBS services. The collection rate remains unchanged. As such NBS revenue is estimated using the following formula:

$$\text{\#of Projected Newborns screened} \times \text{Fee} \times 98\%$$

NBS Revenue Projections

	Fee	Caseload	Collection Rate	Total Revenue
FY 2017-18	\$130.25	478,678	98%	\$61,101,000
FY 2018-19	\$142.25	478,419	98%	\$66,694,000

2. PNS Revenue

The Prenatal Screening Program charges a fee of \$221.60 to all participating women. Of the total fee \$211.60 is deposited into the Genetic Disease Testing Fund (Fund 0203), and \$10 is deposited into the California Birth Defect Monitoring Program Fund (Fund 3114). Unlike NBS which collects revenue from hospitals directly, PNS invoices participants and bills insurance companies (analogous to the way a traditional medical provider would). This system of billing which shares cost between the participant and one or more third party payers makes full, or close to full collection of revenue a challenge for the program. Past collection rates have

revealed that PNS collects a higher percentage of anticipated revenue from Medi-Cal enrollees than those enrolled in private insurance plans or the uninsured. PNS receives approximately 98 percent of all claims submitted to Medi-Cal, and approximately 83 percent of all claims submitted to private insurance companies and other payers. Approximately 45 percent of all PNS participants are enrolled in Medi-Cal. PNS revenue is estimated using the following formula:

$$(\text{Fee} \times \text{PNS Participants} \times \text{Medi-Cal Participation Rate} \times \text{Medi-Cal Collection Rate}) + (\text{Fee} \times \text{PNS Participants} \times \text{Private Payer Rate} \times \text{Private Payer Collection Rate})$$

PNS Revenue Projections

	A=(\$221.60-\$10)	B	C	D=1-C	E	F	G=(B*C)	H=(B*D)	I=(G*A*E)+(H*A*F)
Fiscal Year	Fee	Caseload	% Medi-Cal	% Non-Medical	Medi-Cal Collection Rate	Private Insurance Collection Rate	Medi-Cal Cases	Non Medi-Cal Cases	Total Revenue
FY 2017-18	\$211.60	342,532	45%	55%	98%	83%	154,139	188,393	\$65,051,000
FY 2018-19	\$211.60	342,347	45%	55%	98%	83%	154,056	188,291	\$65,015,000