



Appendix A

California Area CHS Cost Calculations



Appendix A - CHS Data and the CHS Multiplier

In the effort to predict the future burden of CHS costs on the Service Units in the California Area, it is important to determine the past experience on a unit of service basis. Typically this allows us to predict future CHS costs when these “unit of service” costs can be multiplied by the predicted new workloads for the expanded population. We are generally successful in finding reliable measures; but in some cases, variable definitions do not lend themselves to finding comparable measures across all Service Units. This is particularly true for the California Area. Tribes generally receive federal monies through direct contracts and no universally utilized Fiscal Intermediary (F.I.) exists by which to discreetly understand what average per encounter costs are. Neither is there any apparent path toward understanding how much the Area Office paid in addition to “per/encounter” costs.

Conversations were held with Janet Bergemann and Toni Johnson at the California Area Office to determine if there was any possible way of arriving at a “per/encounter” cost. The only potential existed in querying NIPRS data in hopes that a “per/encounter” cost could be established. Three California tribal data sets (one from the north, central and southern parts of the state) might be utilized for this effort but these tribes are neither the largest nor are they likely representative or “typical” in their referrals. The question arose as to “*how reliable do you think that data would be?*” It was determined that such an effort might produce a data reliability factor of perhaps “6” (with 1 being completely unreliable and 10 being completely reliable). For the work involved, and the lack of credibility resulting, this path was determined to be unprofitable.

Conversations were also held with Jim Crouch at the California Rural Indian Health Board (CRIHB). The Innova Group was informed that CRIHB might have the kind of CHS data being sought after for this planning effort. However, the data possessed by CRIHB is a relatively small sample from a “shared risk” pool formed to gap the difference between the \$1,000 and \$1,600 CHEF threshold. This does not correlate to the comprehensive and discreet ICD/RPMS code driven “per/encounter” costs required to support this planning projection. As a result, this path was also determined to be unprofitable.

In the end, it was decided to utilize Portland’s CHS per/encounter costs along with their CHS multiplier, and adjust those by Medicare’s National Wage Index. This index raises Portland’s number (at .9931) to a national value of 1.00. This index is then further applied in the CHS Summary Table (in the Master Plan Summary) by county, allowing each PSA to see how the Portland Costs, once nationalized, would be further adjusted for their specific location. This is certainly not ideal. However, the reliability of the Portland data, adjusted by a nationally utilized Medicare factor, produces a higher degree of reliability than utilization of data that might be supplied by either the California Area Office or CRIHB.

The path toward our utilization of Portland Data is as follows.

Portland CHS Data & Multiplier

We know that the Portland Area, through their F.I., expended \$23,130,822 for the years 2001, 2002, & 2003. We have broken down that total, with the help of the Area CHS Office and the F.I., into defined amounts, allowing us to determine unit of service costs for most of the service lines identified on the Resource Allocation Section of the Master Plan Primary Service Area report. These are listed on the table below and total \$21,027,278. There are 3 categories where the information could not be defined in reliable numerators or denominators, so we could not separate out reliable unit of service costs. These categories total \$2,103,544. There was \$0

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Appendix B

California Area Productivity Benchmarks



Key Characteristics

Key Characteristics (KC) are typically the most expensive element within any discipline of care. This table identifies KCs for each discipline as well as the capacity for each KC.

Discipline	Direct Health Care		
	Workload Units	Key Characteristics (KC)	KC Capacity
Primary Care			
Family Practice	Visits	Providers	4,512
		Provider Offices	1 per provider
		Exam Rooms	2 per provider
Internal Medicine	Visits	Providers	3,708
		Provider Offices	1 per provider
		Exam Rooms	2 per provider in clinic
Pediatric	Visits	Providers	4,512
		Provider Offices	1 per provider
		Exam Rooms	2 per provider in clinic
Ob/Gyn	Visits	Providers	3,068
		Provider Offices	1 per provider
		Exam Rooms	2 per provider in clinic
Urgent Care Clinic	Visits	Providers	4,512
		Provider Offices	
		Exam Rooms	
Primary Care Total	Visits	Providers	4,200
		Nursing Support	1.5 per provider
		Provider Offices	1 per provider
		Exam Rooms	2 per provider
Emergency Care			
Emergency	Visits	ER Providers	4,032
		Patient Spaces	1,938
Urgent Care	Visits	Providers	4,800
		Provider Offices	1 per provider
		Exam Rooms	6,400
Emergency Care Total	Visits	ER Providers	if <3000 visits then 1, if 3000-9999 then 2.7, if greater than 9999 visits then visits/3101
		RNs	if <3000 visits then 5.4, if 3000-5440 then 6.3, if greater than 5440 then 9.93 or visits/1501, whichever is greater
		Patient Spaces	1,938
Specialty Care			
Orthopedics	Visits	Providers	2,707
		Provider Offices	1 per provider
		Exam Rooms	2 per provider in clinic - 60% of time in clinic
Ophthalmology	Visits	Providers	3,609
		Provider Offices	1 per provider
		Exam Rooms	2 per provider
Dermatology	Visits	Providers	4,060
		Provider Offices	1 per provider
		Exam Rooms	2 per provider in clinic - 80% of time in clinic
General Surgery	Visits	Providers	2,707
		Provider Offices	1 per provider
		Exam Rooms	2 per provider in clinic - 60% of time in clinic
Otolaryngology	Visits	Providers	2,707
		Provider Offices	1 per provider
		Exam Rooms	2 per provider in clinic - 80% of time in clinic
Cardiology	Visits	Providers	2,100
		Provider Offices	1 per provider
		Exam Rooms	2 per provider in clinic - 80% of time in clinic
Urology	Visits	Providers	2,707
		Provider Offices	1 per provider



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Discipline	Direct Health Care		
	Workload Units	Key Characteristics (KC)	KC Capacity
Neurology	Visits	Exam Rooms	2 per provider in clinic -70% of time in clinic
		Providers	1,900
		Provider Offices	1 per provider
Other Subspecialties	Visits	Exam Rooms	2 per provider in clinic - 80% of time in clinic
		Providers	1,900
		Provider Offices	1 per provider
Nephrology	Visits	Exam Rooms	2 per provider in clinic - 80% of time in clinic
		Providers	1,900
		Provider Offices	1 per provider
Allergy	Visits	Exam Rooms	2 per provider in clinic - 80% of time in clinic
		Providers	1,900
		Provider Offices	1 per provider
Pulmonology	Visits	Exam Rooms	2 per provider in clinic - 80% of time in clinic
		Providers	1,900
		Provider Offices	1 per provider
Gerontology	Visits	Exam Rooms	2 per provider in clinic - 80% of time in clinic
		Providers	1,900
		Provider Offices	1 per provider
Gastroenterology	Visits	Exam Rooms	2 per provider in clinic - 80% of time in clinic
		Providers	1,900
		Provider Offices	1 per provider
Rheumatology	Visits	Exam Rooms	2 per provider in clinic - 80% of time in clinic
		Providers	1,900
		Provider Offices	1 per provider
Oncology	Visits	Exam Rooms	2 per provider in clinic - 80% of time in clinic
		Providers	1,900
		Provider Offices	1 per provider
Pediatric Subspecialties	Visits	Exam Rooms	2 per provider in clinic - 80% of time in clinic
		Providers	1,900
		Provider Offices	1 per provider
Pediatric-Genetics	Visits	Exam Rooms	2 per provider in clinic - 80% of time in clinic
		Providers	1,900
		Provider Offices	1 per provider
Traditional Healing	Visits	Exam Rooms	2 per provider in clinic - 80% of time in clinic
		Providers	1,900
		Provider Offices	1 per provider
Specialty Care Sub-Total	Visits	Exam Rooms	2,400
		Provider Offices	1 per 2 exam rooms
Total Providers	Visits	Providers Provider Offices Exam Rooms & Patient Spaces	Totals from Above
Other Ambulatory Care Services			
Dental	Dental Service Minutes	Providers	167,184
		Provider Offices	1 per provider
		Hygenist	.5 per provider
		Dental Chairs	2.5 per provider
Optometry	Visits	Optometrist	2,008
		Eye Lanes	2 per provider
		Offices	1 per provider
Podiatry	Visits	Podiatrists	2,707
		Podiatry Offices	1 per provider
		Exam Rooms	2 per provider in clinic - 60% of time in clinic
Dialysis Patients	Visits	Dialysis Stations	.31 station/patient in 45 hours/week operation





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Discipline	Direct Health Care		
	Workload Units	Key Characteristics (KC)	KC Capacity
Audiology	Visits	Audiologists Audiologist Offices Audiology Booths	2,008 1 per Audiologist 1 per Audiologist
Behavioral Health			
Mental Health	Visits	Counselors	If mental health population > 1000, then $((\text{mental health population}/1000) * 0.50) + 0.040$ if not then 0
Psychiatry	Visits	Counselor Offices Providers Provider Offices Exam Rooms	1,720
Social Service	Visits	Counselors	(MSW Counselor inpatient only) If total ADPL ≤ 0, if not then $((\text{total ADPL}/3) * 0.10) + (\text{social service staff})$ If social service population ≤ 1000 then 0, if not then $((\text{social service population}/279) * 0.10) + (\text{clerical support})$ if social services population ≤ 1000 then 0, if not then $((\text{social services population}/279) * 0.02)$
Domestic Violence	Interventions	Counselor Offices Counselors	
Alcohol & Substance Abuse	Visits	Counselors Counselor Offices	1,720
Inpatient Care			
Labor & Delivery	Births	LDRs	$.75 \text{ adpl} + (1.645 * \sqrt{.75 \text{ adpl}})$
Obstetrics	Patient Days	Post Partum beds	
Neonatology	Patient Days	# of Bassinets	
Pediatric	Patient Days	# of Beds	$\text{adpl} + (1.645 * \sqrt{\text{adpl}})$
Adult Medical Acute Care			
Cardiology		# of Beds	
Endocrinology		# of Beds	
Gastroenterology		# of Beds	
General Medicine		# of Beds	
Hematology		# of Beds	
Nephrology		# of Beds	
Neurology		# of Beds	
Oncology		# of Beds	
Pulmonary		# of Beds	
Rheumatology		# of Beds	
Unknown		# of Beds	
Medical Patient Day Total		# of Beds	
Adult Surgical Acute Care		# of Beds	
Dentistry		# of Beds	
Dermatology		# of Beds	
General Surgery		# of Beds	
Gynecology		# of Beds	
Neurosurgery		# of Beds	
Ophthalmology		# of Beds	
Orthopedics		# of Beds	
Otolaryngology		# of Beds	
Thoracic Surgery		# of Beds	



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Direct Health Care			
Discipline	Workload Units	Key Characteristics (KC)	KC Capacity
Urology		# of Beds	
Vascular Surgery		# of Beds	
Surgical Patient Day Total			
Intensive Care Unit	Patient Days	# of beds	adpl + (1.645*sqrt(adpl))
Psychiatry	Patient Days	# of beds	adpl + (1.645*sqrt(adpl))
Substance Abuse	Patient Days		
Sub Acute / Transitional Care	Patient Days	# of beds	adpl + (1.645*sqrt(adpl))
Inpatient Care Totals			
Elder Care			
Nursing Home	Patient Beds	# of patient beds	65+ User Pop X .0181 X 110%
Assisted Living	Patient Beds	# of patient beds	65+ User Pop X .0231 x 110%
Hospice	Patient Beds	# of patient beds	65+ User Pop x .00136 + (<65 x .00006)
Elder Care Totals			
Ancillary Services			
Laboratory Services	Billable Tests	tech staff @ peak	9,820
Clinical Lab	Billable Tests	tech staff @ peak	9,820
Microbiology	Billable Tests	tech staff @ peak	9,820
Blood Bank			9,820
Anatomical Pathology	Billable Tests	tech staff @ peak	9,820
Lab Totals			
Pharmacy	Scripts	Pharmacists	19,350
Acute Dialysis	Visits	# of beds	624
Diagnostic Imaging			
Radiographic	Exams	Rooms	6,000
Ultrasound	Exams	Rooms	2,667
Mammography	Exams	Rooms	4,000
Fluoroscopy	Exams	Rooms	2,000
CT	Exams	Rooms	4,000
MRI	Exams	Rooms	4,000
Diagnostic Imaging Total			
Nuclear Medicine	Exams		2,000
Rad. Oncology	Exams		6,000
Chemotherapy	Exams		2,000
Rehabilitation Services			
Physical Therapy	Visits		1,790
Occupational Therapy	Visits		1,790
Speech Therapy	Visits		1,790
Rehab Total			
Respiratory Therapy	Minutes	# of staff FTE	77,400
Cardiac Catherization Cases	Cases	Rooms	1,200
Home Health Care	Minutes		14
Outpatient Endoscopy	Cases	# of Minor Procedure rooms	3,200
Outpatient Surgery Cases			
Cardiovascular	Minutes		85
Digestive	Minutes		85
Endocrine	Minutes		85
ENT	Minutes		45
Gynecology	Minutes		30
Hemic and Lymphatic	Minutes		85
Integument	Minutes		30
Musculoskeletal	Minutes		70
Nervous	Minutes		70
Ocular	Minutes		45
Respiratory	Minutes		85



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Direct Health Care			
Discipline	Workload Units	Key Characteristics (KC)	KC Capacity
Urogenital	Minutes		60
OP Surgical Case Total	Cases	Outpatient ORs	1,400
Inpatient Surgery Cases	Cases	Inpatient ORs	1,000
		# of Pre-Op Spaces	1 per OR + Minor Rooms
		# of PACU Spaces	1 per OR
		# of Phase II Spaces	1.5 per OR + Minor Rooms
Surgical Case Total			
Administrative Support			
Administration		# of FTE	(Executive Staff)((if the facility is a hospital or a health center then 4, if not then 0) + (if the facility is a health station or health center, then 0, if not (if the total staff (excluding the driver, executive staff, office services, financial management, staff health, and material management) < 250, then 0, if not then (total staff number (excluding the driver, executive staff, office services, financial management, staff health, and material management)-250)/250))+((if the facility is a health center or health station then 2, if not then 0) + (if the facility is not health center or health station, then 0, if not then (if the total staff count < than 100, then 0, if not then (total staff count (excluding the driver, executive staff, office services, financial management, staff health, and material management)-100)/(100*1)+(Administrative Support Staff)If the facility is a hospital or medical center, then 2, if not then 0)+(If the facility is not a hospital or medical center, then 1, if not then 0).
Information Management		# of FTE	1 + (if(PCPVs + total inpatient days) > 4400, then ((PCPVs+total inpatient days)/10000)*0.60) if not then 0)



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Discipline	Direct Health Care		
	Workload Units	Key Characteristics (KC)	KC Capacity
Health Information Management		# of FTE	(Medical Records technicians) (If the facility is a hospital or a health center, then the total patient days (general medicine, OB/GYN, surgery, peds, new born, ICU/CCU)/365), if not then 0)+((primary care provider visits/4550)*1)+(Medical Records Technician (CHA/P))(CHP Ambulatory Encounters / 40,000) *1+(PCC Supervisor)((PCC data entry personnel / 4) *1)+(PCC data entry personnel)if (or(the facility is a hospital, or medical center) the (O.P WKLDP10 +1.952 * inpatient population)/(if the facility is a health station or health center, then (O.P.WKLDP10 +1.92*Ambulatory Inpatient Population)/1600) if not then 0) + P 10= If the facility is a health center, then OPVs to H.C), if not then (if the facility is a hospital or health center, then OPVs to a hospital, if not (RRM calculation PCPVs /0.8) + (OPVs to hospital = If the facility is a hospital or medical center, then (RRM Calculation PCPVs * HOSP OPV FCTR)) + (OPVs to H.C = If the facility is a health center, then RRM calculation PCPVs * MMB OPV FCTV, if not then RRM calculation PCPVs /0.8) + (Coder) (if the facility is a hospital or medical c
Business Office		# of FTE	(Business Manager) (if the facility has outpatient visits then 1, if not then 0)+((Patient registration Tech) ((if inpatient admissions - override cell > inpatient admissions - calculated cell then inpatient admissions - override cell/2000) * 1) + (if outpatient visits > 20000 then (outpatient visits-20000)/(10000 * 0.5) if
Contract Health		# of FTE	(CHS Staff) If number of CHS purchase orders < 100, then 0, if not then (number of CHS purchase orders/2000) *1)+(Utilization Review) ((CHS purchase orders/10000) * 1)+(CHS Manager) If (CHS purchase orders > 100 ,then 1 if not ,then 0)
Facility Support Services			
Durable Medical		# of FTE	



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Discipline	Direct Health Care		
	Workload Units	Key Characteristics (KC)	KC Capacity
Clinical Engineering		# of FTE	$0.5 + (\text{if the facility is a hospital or medical center, then } 1 \text{ if not, then } 0) + ((\text{PCPVs}/2500) * 0.30) + (\text{Total ADPL} / 50000) + ((\text{OPVs}/325000) * 0.50) + ((\text{ER After hours PCPVs}/85000) * 0.50) + ((\text{dental population}/10000000) * 0.5) + ((\text{Projected \# of deliveries}/5000) * 0.50) + ((\text{IN.P. surgical cases} + \text{IN.P. GYN. Surgical cases})/5500) * 0.5) + ((\text{Projected \# of deliveries}/5000) * 0.50) + ((\text{IN.P. surgical cases} + \text{IN.P. GYN. Surgical cases})/5500) * 0.5) + (\text{Total ADPL}/10000) * 0.50 + (\text{PCPVs}/65000 * 0.50) + ((\text{ER After hours PCPVs}/17000) * 0.50) + ((\text{dental population}/2000000) * 50 * 95)$
Facility Management		# of FTE	$0.5 + (\text{If the facility is a medical center or a hospital, then } 2 \text{ if not, then } 0) + (\text{New born ADPL}/1 * 0.50) + (\text{if acres of ground} \leq 0, \text{ then calculated acres}/7.5 * 1) + \text{if } ((\text{Total space} - \text{IN.P treatment space}) \leq 1500, \text{ then } ((\text{Total space} - \text{N.P treatment IN.P treat treatment space})/16500), \text{ if not then } ((\text{total space} - \text{IN.P. treatment space})/13000)) + \text{Quarters \#}$
Central Sterile		# of FTE	$(\text{Central Supply Staff}) * 0.67 + (\text{total nurse stations} * 0.67 + (\text{Medical Technician}) \text{ If surgery days} > 0, \text{ then } 1 \text{ if not then } 0$
Dietary		# of FTE	$(\text{Registered Dietian}) (\text{If the facility is a hospital or medical center, then } 1, \text{ if not then } 0) + (\text{Food Services Staff}) \text{ If the facility is a hospital or medical center, then } (\text{if FAC INFO T43}=1, \text{ then } 0.345 * \text{OR cases, if not then } 0.315 * \text{OR cases}), \text{ if not } (\text{if OR cases are less or equal to } 5, \text{ then } 0, \text{ if not then } (\text{if FAC INFO T43}=1 \text{ then } \text{OR cases} * 0.4 + 2, \text{ if not then } 0.258 * \text{OR cases} + 2))$
Property & Supply		# of FTE	$(\text{Total RRM staff}/75) * 1$
Housekeeping & Linen		# of FTE	$(\text{If the facility is a health center or health station then } 2, \text{ if not, then } 0) + (\text{If ADPL} < 21, \text{ then ADPL}/7), \text{ if not then } (((\text{total ADPL} - 21)/10) + 21/7) + (\text{total space}/10000)$
Preventative Care			
Health Promotion / Disease Prevention (Preventive Care)		# of FTE	



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Discipline	Direct Health Care		
	Workload Units	Key Characteristics (KC)	KC Capacity
Public Health Nursing			(Public Health Nurse Manager) (If PHN population>1250 then 1, if not, then 0)+(Public Health Nurse) (1.38+(PHN population/1250))+0+if (PHN Population<1250, then 0, if not, then ((#of weekly one hour PHN managed clinics/1)*0.03)+(((if # of CHRs supervised < 5, then 0, if not then (# of CHRs supervised-5)/10)*1)+(Public Health Nurse - Home Health Care) (if home health case =1, (0.2*(PHN pop./1250)) if not then 0) + (Public Health Nurse - School) (if PHN school=3, then 0, if not, then (0.07*PHN population)/1250)+(Clerical Support)((0.2*PHN pop)/1250)
Public Health Nutrition			(If Nutrition population < 1400, 0) if not then ((Nutrition population/100)*0.3)+0.3
Environmental Health			
Health Education			(If health education population<2000, then 0) of not then (if health education population <= 400, then 1 if not ,then (((health education popualiton-4000)/4000)+1)
Case Management	Cases	# of FTE	2,400
Epidemiology		# of FTE	
Additional Services			
CHR		# of FTE	
Diabetes Program		# of FTE	
HIV/AIDS		# of FTE	
Tobacco		# of FTE	
WIC		# of FTE	
Wellness		# of FTE	
Transportation		# of FTE	
Domestic Violence		# of FTE	
EMS		# of FTE	
Maternal Child Health		# of FTE	
Tribal Health Administration		# of FTE	
Alternative Medicine		# of FTE	
Bio-Terrorism		# of FTE	
Injury Prevention		# of FTE	
Security		# of FTE	

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Appendix C California Area Healthcare Facility Priority System Database

California Area service areas requested documentation of their historic need to construct new facilities and/or replace old, unusable facilities without any assistance from Indian Health Services. They assert the Master Plan penalizes health programs that have assumed debt in order to construct a viable facility from which to provide services to the Native American community. In some cases, facilities have only been able to achieve affordable financing through rural development loans from USDA and private banking institutions. These lending institutions, in return, required such facilities to open services to the public. This has impacted the programs' ability to ensure Native Americans access to contract health service. In the past, all profit from services provided by the agency supplemented under-funded contract health services. Now those third party dollars must be used to retire construction dept.

Score/Input Report - Health Care Facility Priority System

IHS Area		CALIFORNIA											DRAFT	
Name of Facility	Town	state	User Pop	Existing Space (m2)	Building Age	FEDS Deficiencies	Distance to Care	FBE Factor	FDI Score	Crit1	Crit2	Crit3	Crit4	TOTAL SCORE
ALPINE HEALTH CLINIC	ALPINE	CA	2,200	1,285	22	\$3,240	31	1.11	60%	177	80	0	143	400
MODOC INDIAN HEALTH ADMIN	ALTURAS	CA	247	561	6	\$41,617	145	1.12	130%	0	0	100	0	100
XL RANCH HEALTH STATION	ALTURAS	CA	53	142	46	\$28,784	164	1.12	64%	288	72	100	0	460
ANZA HEALTH STATION	ANZA	CA	96	116	30	\$0	54	1.12	65%	274	70	60	0	404
POTAWOT HEALTH CLINIC	ARCATA	CA	3,748	4,140	30	\$231,992	0	1.17	43%	22	114	0	132	268
CHAPA-DE HEALTH CLINIC	AUBURN	CA	2,872	3,172	15	\$284,950	2	1.05	45%	0	110	0	138	248
MORONGO CLINIC	BANNING	CA	3,313	2,285	45	\$814,666	15	1.07	65%	262	70	0	135	467
TOIYABE HEALTH CLINIC	BISHOP	CA	2,697	2,270	23	\$499,699	1	1.1	50%	108	100	0	140	348
BURNEY HEALTH CLINIC	BURNEY	CA	1,113	642	23	\$453,432	97	1.13	64%	262	72	100	0	434
CALPELLA HEALTH CENTER	CALPELLA	CA	3,905	1,697	15	\$202,231	11	1.21	37%	217	126	0	131	474
CAMPO HEALTH STATION	CAMPO	CA	515	766	1	\$9,645	91	1.11	60%	0	80	100	0	180

CHICO HEALTH STATION	CHICO	CA	1,167	1,060	8	\$93,328	6	1.06	48%	38	104	0	0	142
CENTRAL VALLEY CLINIC	CLOVIS	CA	5,086	1,366	36	\$618,911	3	1.14	38%	334	124	0	122	580
COLUSA INDIAN HEALTH CENTER	COLUSA	CA	149	425	46	\$20,617	4	1.06	51%	117	98	0	0	215
ROUND VALLEY HEALTH CENTER	COVELO	CA	1,454	1,341	20	\$239,817	113	1.21	50%	79	100	100	149	428
ELK VALLEY RANCHERIA OFFICE	CRESCENT CITY	CA	1,695	270	0	\$24,210	2	1.17	43%	333	114	0	147	594
SYCUAN MEDICAL/DENTAL CLINIC	EL CAJON	CA	408	722	28	\$119,894	22	1.11	97%	8	6	0	0	14
WARNER MOUNTAIN INDIAN HTH STA	FORT BIDWELL	CA	131	424	4	\$68,325	241	1.12	105%	0	0	100	0	100
QUARTZ VALLEY RANCHERIA	FORT JONES	CA	150	396	0	\$13,022	46	1.13	57%	0	86	51	0	137
FORTUNA HEALTH CLINIC	FORTUNA	CA	1,007	185	41	\$85,842	3	1.17	43%	367	114	0	0	481
GRASS VALLEY HEALTH CLINIC	GRASS VALLEY	CA	685	307	30	\$67,738	1	1.05	45%	291	110	0	0	401
GREENVILLE TRIBAL HEALTH CTR	GREENVILLE	CA	389	793	23	\$120,872	35	1.12	37%	0	126	0	0	126
HAPPY CAMP CLINIC	HAPPY CAMP	CA	585	1,001	19	\$129,908	121	1.13	59%	0	82	100	0	182
SAN MANUEL CLINIC	HIGHLAND	CA	4,798	857	12	\$0	4	1.05	65%	317	70	0	124	511
KIMA:W MEDICAL CENTER	HOOPA	CA	3,685	3,158	5	\$525,015	85	1.17	54%	22	92	94	132	340

JACKSON RANCHERIA CLINIC	JACKSON	CA	708	844	6	\$55,362	8	1.13	49%	0	102	0	0	0	102
KLAMATH HEALTH STATION	KLAMATH	CA	560	392	10	\$49,193	40	1.17	43%	168	114	44	0	0	326
LAKE COUNTY TRIBAL CLINIC	LAKEPORT	CA	2,284	1,215	4	\$85,412	9	1.21	34%	166	132	0	143	0	441
SANTA ROSA HEALTH STATION	LEMOORE	CA	2,872	296	7	\$51,675	18	1.14	38%	355	124	0	138	0	617
LONE PINE HEALTH CLINIC	LONE PINE	CA	599	432	25	\$81,437	97	1.19	50%	209	100	100	0	0	409
MARIPOSA HEALTH CLINIC	MARIPOSA	CA	526	367	1	\$0	61	1.13	49%	164	102	68	0	0	334
NORTH FORK HEALTH STA	NORTH FORK	CA	954	154	86	\$70,668	63	1.14	38%	378	124	70	0	0	572
ORLEANS CLINIC	ORLEANS	CA	251	268	16	\$130,564	105	1.17	59%	197	82	100	0	0	379
WEITCHEP HEALTH STATION	ORLEANS	CA	158	84	4	\$11,998	80	1.17	43%	302	114	89	0	0	505
FEATHER RIVER INDIAN HEALTH	OROVILLE	CA	2,808	3,029	6	\$363,779	5	1.05	41%	0	118	0	139	0	257
PAUMA VALLEY CLINIC	PAUMA VALLEY	CA	4,733	4,796	5	\$367,892	29	1.11	55%	0	90	0	125	0	215
LA POSTA A/S/A TREATMENT CENTER	PINE VALLEY	CA	2,715	232	4	\$0	55	1.11	60%	361	80	61	139	0	641
POINT ARENA HEALTH STATION	POINT ARENA	CA	186	165	4	\$24,242	82	1.21	44%	220	112	91	0	0	423
TULE RIVER HEALTH CENTER	PORTERVILLE	CA	1,960	1,166	29	\$304,428	29	1.13	50%	223	100	0	145	0	468

PRATHER CLINIC	CA	896	240	7	\$29,114	18	1.14	38%	300	124	0	0	424
RED BLUFF TRIBAL HEALTH CENTER	CA	896	749	0	\$104,195	2	1.12	37%	89	126	0	0	215
REDDING RANCHERIA HEALTH CTR	CA	5,379	1,018		\$40,750		1.13	53%	0	94		120	
SOBOBA CLINIC	CA	4,413	1,616	10	\$0	13	1.12	65%	227	70	0	127	424
SANTA ROSA HEALTH CENTER	CA	4,966	3,400	5	\$153,069	6	1.21	44%	79	112	0	123	314
SANTA YNEZ HEALTH CLINIC	CA	1,024	1,196	8	\$66,256	60	1.12	30%	0	140	67	0	207
SANTA YSABEL CLINIC	CA	799	567	2	\$8,450	57	1.11	30%	131	140	63	0	334
SHINGLE SPRINGS TRIBAL HEALTH	CA	1,114	655	14	\$123,152	19	1.14	39%	188	122	0	0	310
HOWONQUET HEALTH CENTER	CA	410	788	11	\$59,115	16	1.17	43%	0	114	0	0	114
BOULDER PLAZA CLINIC	CA	203	292	6	\$19,449	8	1.13	49%	85	102	0	0	187
LASSEN INDIAN HEALTH CENTER	CA	1,285	916	13	\$299,060	138	1.12	46%	148	108	100	150	506
PECHANGA HEALTH STATION	CA	1,098	233	18	\$4,200	22	1.07	65%	323	70	0	0	393
TORRES-MARTINEZ HEALTH STATION	CA	219	379	25	\$5,120	24	1.07	65%	74	70	0	0	144
TUOLUMNE HEALTH CLINIC	CA	1,004	967	29	\$21,630	13	1.13	49%	109	102	0	0	211

VISALIA HEALTH STATION	VISALIA	CA	1,034	0	26	0	1.14	50%	0	100	0	0	100
WEST POINT CLINIC	WEST POINT	CA	387	169	26	42	1.13	49%	304	102	47	0	453
WILLOWS HEALTH CLINIC	WILLOWS	CA	784	1,486	10	64	1.06	48%	0	104	71	0	175
WOODLAND HEALTH STATION	WOODLAND	CA	911	1,130	26	24	1.14	45%	36	110	0	0	146
YREKA TRIBAL HEALTH CENTER	YREKA	CA	1,201	1,130	38	2	1.13	59%	155	82	0	0	237
FEATHER RIVER INDIAN HEALTH	YUBA CITY	CA	1,375	272	11	5	1.05	41%	320	118	0	149	587



Appendix D California Area Service Area Community Assumptions

Appendix D is not published as a part of this final report, having been published through several previous phases. However, it is available for download at www.theinnovagroup.com through the client access portal. The document is approximately 40 pages of tabular community data used for deciding which communities should be assigned to primary service areas for planning purposes.

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Appendix E California Area Crossover/Migration Summary

The Crossover or Migration Summary answers the question: *what is the tendency for the User Population to seek care outside their Service Area of residence?* Some Service Areas will have positive crossover, and some will have negative crossover. **Negative Crossover** or **Out-Migration** occurs for Service Areas that anticipate more of their User Population's visits to seek care elsewhere, than they expect Other-Service Area User Population's visits to seek care at their facility. **Positive Crossover** or **In-Migration** occurs for Service Areas that anticipate less of their User Population's visits to seek care elsewhere, than they expect Other-Service Area User Population's visits to seek care at their facility.

Although some Service Areas may show a *historical* negative crossover rate, a 0% crossover rate has been used for the Master Plan's planning assumptions. This will ensure assets are right sized for these locations, not mandating crossover to access care. This will not eliminate positive crossover at the larger locations though it will hopefully minimize it.

The table on the page identifies rates that were utilized in each Primary Service Area Delivery Plan in consultation with local leadership. Rates were analyzed and applied for the following lines of care: Primary Care, Specialty Care, Dental and Pharmacy. The planning rates are found in the "proposed" column for each of the five lines of care identified above.



Crossover Summary

Facility / PSA	2004 User Pop	Primary Care		Specialty Clinic		Optometry		Pharmacy		Dental		Remarks
		Historical	Proposed	Historical	Proposed	Historical	Proposed	Historical	Proposed	Historical	Proposed	
		Crossover %		Crossover %		Crossover %		Crossover %		Crossover %		
Central Valley Indian Health Program	6,009											
Central Valley Indian Hlth -- Clovis	4,106	-10.0%	1.0%	26.0%	0.0%	37.0%	1.0%	-15.0%	0.0%	12.0%	1.0%	
Central Valley Indian Hlth -- Prather	510	2.0%	2.0%	-79.0%	0.0%	-100.0%	0.0%	0.0%	0.0%	14.0%	0.0%	
North Fork Indian & Comm. Hlth Center	782	-12.0%	0.0%	-91.0%	0.0%	-98.0%	0.0%	-20.0%	0.0%	-100.0%	0.0%	
Tachi Medical Clinic	611	91.0%	0.0%	-100.0%	0.0%	-100.0%	0.0%	101.0%	0.0%	58.0%	6.0%	
Chapa-De Indian Health Program	3,771											
Chapa-De Health Clinic	2,334	47.0%	26.0%	32.0%	0.0%	78.0%	42.0%	76.0%	38.0%	8.0%	18.0%	Dental - now offer ortho
Grass Valley Health Clinic	627	-31.0%	0.0%	-66.0%	0.0%	-100.0%	0.0%	-99.0%	0.0%	1.0%	0.0%	
Yocha-De-He Health Clinic	810	11.0%	10.0%	31.0%	0.0%	-100.0%	0.0%	-96.0%	0.0%	107.0%	53.0%	Dental - no longer offer ortho
Colusa Indian Health Program	111											
Arbuckle Medical Office	0											
Colusa Indian Health Clinic	111	-100.0%	0.0%	-100.0%	0.0%	0.0%	0.0%	-100.0%	0.0%	-100.0%	0.0%	
Consolidated Tribal Health	3,043	-15.0%	0.0%	-1.0%	0.0%	-100.0%	0.0%	-2.0%	0.0%	2.0%	1.0%	
Feather River Indian Health Assoc.	3,308											
Feather River Tribal Hlth -- Oroville	2,207	6.0%	6.0%	21.0%	0.0%	-100.0%	0.0%	10.0%	0.0%	8.0%	0.0%	Clarify future of YC Dental
Feather River Tribal Hlth -- Yuba City	1,101	-14.0%	0.0%	-32.0%	0.0%	-100.0%	0.0%	-31.0%	0.0%	-65.0%	0.0%	
Greenville Rancheria	1,233											
Greenville Tribal Health Ctr.	443	6.0%	1.0%	8.0%	0.0%	-100.0%	0.0%	9.0%	4.0%	46.0%	20.0%	Lassen - right size dental
Red Bluff Tribal Health Center	790	-1.0%	0.0%	-100.0%	0.0%	-100.0%	0.0%	5.0%	5.0%	-90.0%	0.0%	
Indian Health Council	4,550											
Indian Health Council, Inc - Valley Center	3,893	-2.0%	0.0%	4.0%	0.0%	-100.0%	0.0%	-99.0%	0.0%	5.0%	4.0%	
Santa Ysabel Community Health Center	657	255.0%	0.0%	364.0%	0.0%	0.0%	0.0%	-100.0%	0.0%	388.0%	0.0%	New Clinic - will resolve
Karuk Tribal Health Program	1,851											
Happy Camp Health Services	534	0.0%	0.0%	-46.0%	0.0%	-100.0%	0.0%	0.0%	0.0%	-5.0%	1.0%	
Karuk Tribe of CA Clinic - Orleans	221	14.0%	7.0%	-100.0%	0.0%	-100.0%	0.0%	17.0%	10.0%	-100.0%	0.0%	
Karuk Tribe of CA Clinic - Yreka	1,096	13.0%	3.0%	18.0%	0.0%	0.0%	0.0%	7.0%	7.0%	31.0%	7.0%	Quartz Valley will have clinic
K'ima:W Medical Center Clinic (Hoopa)	3,195	-2.0%	0.0%	-8.0%	0.0%	-100.0%	0.0%	1.0%	1.0%	-9.0%	0.0%	
Lake County Tribal Health Clinic	1,793	-5.0%	0.0%	3.0%	0.0%	-100.0%	0.0%	1.0%	1.0%	-6.0%	0.0%	
Mact Health Board, Inc.	2,188											
Jackson Rancheria Health Complex	521	10.0%	3.0%	36.0%	0.0%	-100.0%	0.0%	-39.0%	0.0%	63.0%	11.0%	Place assets at West Point
Mariposa Indian Health Clinic	483	2.0%	3.0%	-100.0%	0.0%	-100.0%	0.0%	-1.0%	0.0%	5.0%	5.0%	
Sonora Indian Health Clinic	145	76.0%	2.0%	-100.0%	0.0%	0.0%	0.0%	37.0%	0.0%	-100.0%	0.0%	Place assets at Tuolumne
Tuolumne Indian Health Center	715	-20.0%	0.0%	-100.0%	0.0%	-100.0%	0.0%	-23.0%	0.0%	23.0%	22.0%	
West Point Community Clinic	324	-7.0%	0.0%	-99.0%	0.0%	-7.0%	0.0%	-20.0%	0.0%	-100.0%	0.0%	
Modoc Indian Health Project	216	-100.0%	0.0%	-100.0%	0.0%	0.0%	0.0%	-100.0%	0.0%	-47.0%	4.0%	



Crossover Summary

Facility / PSA	2004 User Pop	Primary Care		Specialty Clinic		Optometry		Pharmacy		Dental		Remarks
		Historical	Proposed	Historical	Proposed	Historical	Proposed	Historical	Proposed	Historical	Proposed	
		Crossover %		Crossover %		Crossover %		Crossover %		Crossover %		
Northern Valley Indian Health Program	1,584											
Chico Health Clinic	916	-3.0%	0.0%	-17.0%	0.0%	-100.0%	0.0%	-75.0%	0.0%	37.0%	31.0%	Willow's dental removed
Willows Health Center	668	-5.0%	0.0%	-100.0%	0.0%	-100.0%	0.0%	-87.0%	0.0%	6.0%	6.0%	
Pit River Health Services	857											
Burney Health Clinic	811	-2.0%	0.0%	-1.0%	0.0%	0.0%	0.0%	5.0%	5.0%	21.0%	20.0%	
Pit River Health Service - X-L Clinic	46	-3.0%	2.0%	-100.0%	0.0%	0.0%	0.0%	37.0%	0.0%	40.0%	39.0%	Pharm & Dental Data poor
Quartz Valley Rancheria	137	-100.0%	0.0%	-100.0%	0.0%	0.0%	0.0%	-100.0%	0.0%	-100.0%	0.0%	
<i>Redding Rancheria Indian Health Clinic</i>	3,949	2.0%	2.0%	12.0%	0.0%	-100.0%	0.0%	-100.0%	0.0%	-17.0%	3.0%	
Riverside/San Bernardino Co Indian Health Prog.	11,790											
<i>Agua Caliente Outreach Clinic (Palm Springs)</i>	0											
<i>Barstow Outreach Office</i>	4											
Cahuilla/Santa Rosa Outreach Office (Anza)	82	204.0%	0.0%	176.0%	0.0%	-89.0%	0.0%	-98.0%	0.0%	-82.0%	0.0%	
Morongo Health Care Center	2,797	16.0%	16.0%	-39.0%	0.0%	66.0%	1.0%	170.0%	3.0%	14.0%	0.0%	*Communities realigned as per conversation with Health Director. Most internal crossover has been removed.
Pechanga Health Care Center	940	31.0%	0.0%	-38.0%	0.0%	-97.0%	0.0%	-99.0%	0.0%	-100.0%	0.0%	
San Manuel Health Care Clinic	4,014	-29.0%	0.0%	-46.0%	0.0%	-56.0%	0.0%	-63.0%	0.0%	-7.0%	1.0%	
Soboba Health Care Center (San Jacinto)	3,770	-14.0%	0.0%	53.0%	0.0%	23.0%	22.0%	-59.0%	0.0%	-3.0%	0.0%	
Torres-Martinez Health Care Center	187	253.0%	0.0%	116.0%	0.0%	-85.0%	0.0%	-99.0%	0.0%	148.0%	0.0%	
Round Valley Indian Health Center	1,133											
Round Valley Indian Health Clinic	1,133	1.0%	1.0%	0.0%	0.0%	-100.0%	0.0%	1.0%	1.0%	3.0%	2.0%	
Santa Ynez Health Clinic	847	21.0%	20.0%	-100.0%	0.0%	-100.0%	0.0%	-97.0%	0.0%	23.0%	22.0%	
Shingle Springs Tribal Hlth Clinic	906	-4.0%	0.0%	4.0%	0.0%	-100.0%	0.0%	-4.0%	0.0%	3.0%	2.0%	
Sonoma County Indian Health Project	4,199											
Sonoma County Indian Health	4,054	18.0%	18.0%	-11.0%	0.0%	-100.0%	0.0%	-26.0%	0.0%	10.0%	9.0%	
Sonoma County - Manchester/Point Arena	145	-100.0%	0.0%	-100.0%	0.0%	0.0%	0.0%	-100.0%	0.0%	-100.0%	0.0%	
Southern Indian Health Council	2,234											
Alpine Health Center	1,810	19.0%	37.0%	0.0%	0.0%	-100.0%	0.0%	-24.0%	0.0%	29.0%	40.0%	Sycuan % removed (proximity)
Campo Medical/Dental Clinic	424	-10.0%	5.0%	-69.0%	0.0%	0.0%	0.0%	-13.0%	0.0%	-43.0%	5.0%	
Susanville Rancheria - Lassen Indian Health Center	956	1.0%	0.0%	-100.0%	0.0%	-100.0%	0.0%	0.0%	0.0%	-20.0%	3.0%	
Sycuan Medical/Dental Clinic	336	275.0%	137.0%	316.0%	0.0%	0.0%	0.0%	-100.0%	0.0%	259.0%	129.0%	Alpine % removed (proximity)
Toiyabe Indian Health Project	2,838											
Bishop Clinic	2,366	5.0%	3.0%	37.0%	0.0%	18.0%	0.0%	14.0%	0.0%	6.0%	4.0%	Services @ CA & LP Clinics (Antelope Closed)
Camp Antelope Clinic	0	8.0%	11.0%	-100.0%	0.0%	-100.0%	0.0%	-46.0%	0.0%	-2.0%	34.0%	Clinic Closed
Lone Pine Clinic	472	-6.0%	1.0%	-100.0%	0.0%	-100.0%	0.0%	-72.0%	0.0%	-4.0%	1.0%	
Tule River Tribe	2,534											
Tule River Indian Health Center	1,659	9.0%	8.0%	35.0%	0.0%	36.0%	9.0%	-2.0%	0.0%	44.0%	12.0%	Services @ Visalia in future
Visalia Health Station	875	0.0%	0.0%	-98.0%	0.0%	-2.0%	0.0%	-16.0%	0.0%	-100.0%	0.0%	



Crossover Summary

Facility / PSA	2004 User Pop	Primary Care		Specialty Clinic		Optometry		Pharmacy		Dental		Remarks
		Historical	Proposed	Historical	Proposed	Historical	Proposed	Historical	Proposed	Historical	Proposed	
		Crossover %		Crossover %		Crossover %		Crossover %		Crossover %		
United Indian Health Services	6,378											
<i>Elk Valley Rancheria Office</i>	0											
Crescent City PSA (New)	1,353	-100.0%	12.0%	-100.0%	0.0%	-100.0%	0.0%	-100.0%	0.0%	-100.0%	15.0%	Anticipate PC assets - Used Smith River's Rates
Fortuna Health Center	874	-43.0%	0.0%	-100.0%	0.0%	-100.0%	0.0%	-99.0%	0.0%	-100.0%	0.0%	Anticipate PC assets
Howonquet Health Center (Smith River)	327	318.0%	12.0%	139.0%	0.0%	266.0%	0.0%	-66.0%	0.0%	38.0%	15.0%	Realigning communities for Crescent City future PSA
Klamath Health Center	447	-23.0%	0.0%	-100.0%	0.0%	-100.0%	0.0%	-98.0%	0.0%	-97.0%	0.0%	
Potawot Health Center (Arcata)	3,240	17.0%	12.0%	32.0%	0.0%	40.0%	40.0%	24.0%	24.0%	50.0%	25.0%	PHU of Potawot removed for PC's Dent. Right size other clinics for Opt & Ex2
Weitchpec Health Center	137	-35.0%	0.0%	-77.0%	0.0%	-100.0%	0.0%	-100.0%	0.0%	-71.0%	0.0%	
Warner Mountain Indian Hth Clinic	115	13.0%	12.0%	-100.0%	0.0%	0.0%	0.0%	11.0%	11.0%	-100.0%	0.0%	