



The Impact of Medi-Cal Expansion on Adults Formerly Incarcerated in California State Prisons

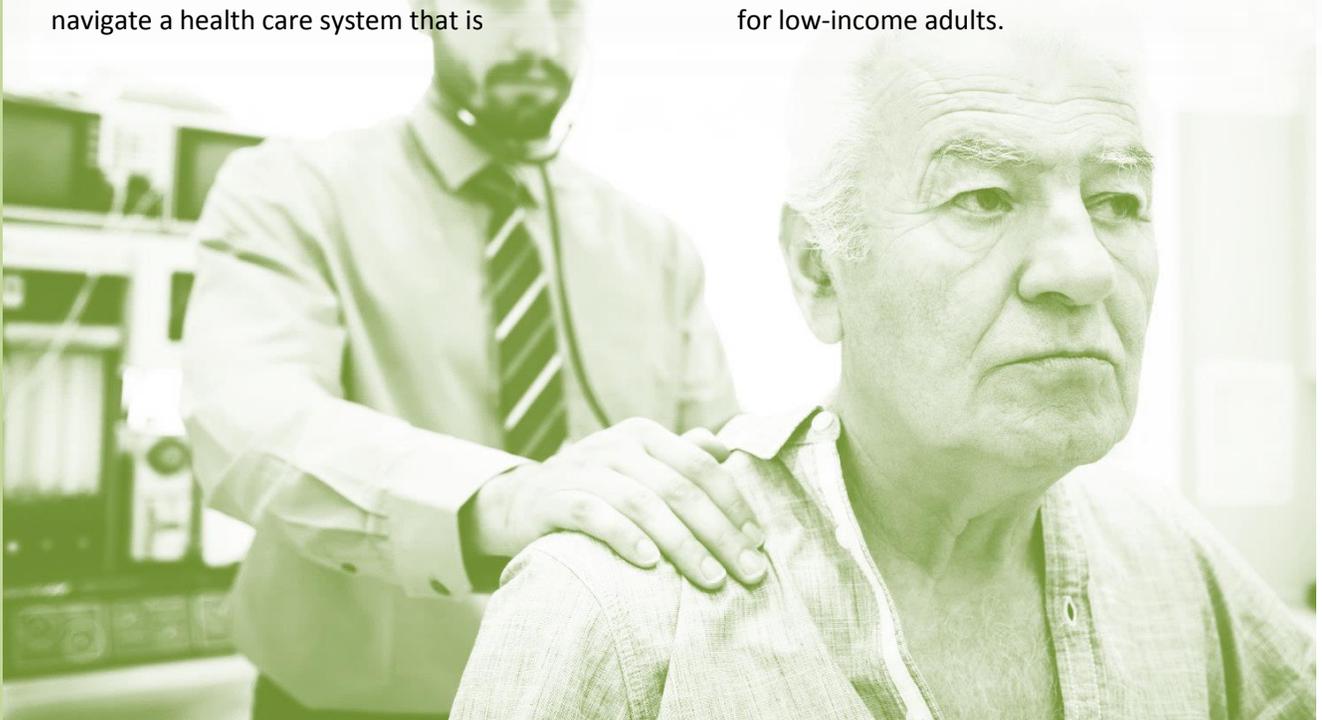
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Summary:

In this report we examine patterns of health care service access and utilization among individuals formerly incarcerated with the California Department of Corrections and Rehabilitation (CDCR). Release data from CDCR was linked to Medi-Cal eligibility and administrative claims data from the Department of Health Care Services (DHCS) for calendar years 2012 to 2016. Results showed that Medi-Cal expansion increased access and utilization of health care services for CDCR's formerly incarcerated. There was an increase in the percent of CDCR's formerly incarcerated receiving a Medi-Cal service between 2012 (pre-Medicaid expansion) and 2016 (post-Medicaid expansion) from 7% to 36%. Additionally, there was an increase in access and utilization of health care services for individuals experiencing the most severe forms of mental illness, classified by CDCR as Enhanced Outpatient Program (EOP) from 22% in 2012 to 52% in 2016. The expansion of the Medicaid program in California has provided access to health care services not previously available to many of the formerly incarcerated. Additional research is needed to quantify the impact of health care utilization on the rates of recidivism in California.

Individuals with behavioral health needs remain significantly overrepresented in the criminal justice system. The California Department of Corrections and Rehabilitation (CDCR) reported that in June 2017 28% of the in-custody population, or 36,400 individuals, had some type of mental health designation.¹ Similarly, of those released from CDCR in 2016, 4% had a severe mental health designation, 20% had a mild to moderate mental health issue while 40% had a substance use treatment need.² Upon release, formerly incarcerated individuals must navigate a health care system that is

multifaceted, requiring them to advocate for their own health needs; these are health literacy skills many formerly incarcerated have not previously developed. Indeed, correctional facilities provide many formerly incarcerated with their first access to preventive and chronic care services, including treatment for substance use and mental health disorders. Prior to the Patient Protection and Affordable Care Act (ACA), a primary barrier to tackling complex physical and behavioral health needs was the lack of affordable health care insurance options for low-income adults.



Beginning in January 2014, California expanded the eligibility of the Medicaid program, Medi-Cal, increasing the income cut-off to 138%³ of the federal poverty level and allowing individuals without dependent children to enroll. ACA's Medi-Cal expansion opened up the health care system to many individuals who had never had access to affordable health care, such as the formerly incarcerated or at-risk of incarceration. In addition to expanding eligibility, the ACA established mental health and substance use disorder benefits as services covered as essential health benefits. Following the ACA, all insurance plans were required to cover essential health benefits without annual caps with the aim of lessening the financial burden on beneficiaries. Expanded eligibility and newly required essential health benefits highlight how access to health care services is not only a public health issue, but a public safety issue. Studies have shown the cost of state spending on incarceration has declined when individuals receive Medicaid services. For example, in a Washington State study the use of publically funded substance use services resulted in 18 percent fewer rearrests in the year following treatment.⁴ In addition, a two year study of jail releases in Illinois, Washington, and Florida found that for those with serious mental illnesses, having Medicaid coverage and receiving behavioral health services was associated with a 16 percent reduction in recidivism.⁵

Understanding the health implications as well as the public safety impact, CDCR has invested in ensuring that individuals leaving California Correctional Facilities are supported in applying for the Medi-Cal program. CDCR's Transitional Case Management Program (TCMP) provides assistance to potentially eligible inmates approximately 90 to 120 days prior to release in the application process for benefit entitlements. In fiscal year (FY) 2016-17, TCMP screened 100% of all inmates for benefit eligibility, and provided benefit assistance services to 77.6% of the inmate population prior to release. With TCMP's assistance, approximately 86% of individuals that were screened and released from CDCR in FY 2016-17 had their application approved for the Medi-Cal program.⁶

Despite CDCR's efforts and investment to support individuals' enrollment in Medi-Cal post release, CDCR has yet to fully evaluate the work and services it has provided to individuals leaving CDCR and how this work has been augmented by the ACA to reduce recidivism.

Seeing the need for additional research on the impact of the ACA Medicaid expansion on justice-involved individuals, CDCR partnered with the Department of Health Care Services (DHCS) to study patterns of health care service utilization among individuals formerly incarcerated with CDCR. Considering the high rates of behavioral health needs among the justice-involved population, a better understanding of if and how these individuals use their health care benefits is needed to inform policy and practice decisions.

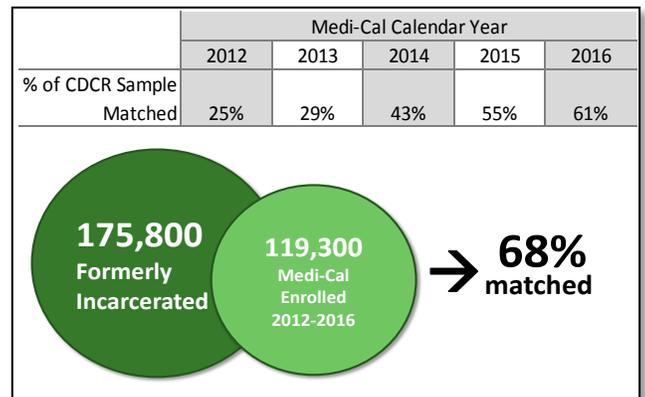
This report examines the proportion of CDCR's formerly incarcerated that received Medi-Cal services between 2012 (Pre-ACA) and 2016 (Post-ACA), the services received, and the time span to receive services post release.

Data Linkage and Description

This study uses data from approximately 176,000 individuals released from CDCR between 2012 and 2016. Using individual's social security number, CDCR data was linked to DHCS Medi-Cal eligibility and administrative claims data. Sixty-eight percent of individuals, or approximately 119,000 CDCR formerly incarcerated, were found to have at least one enrollment month in Medi-Cal between 2012 and 2016 (figure 1). The percentage of CDCR's release cohort that matched to the Medi-Cal database varied across the study time period. It is estimated that following changes in the eligibility criteria for Medicaid that between 80% to 90% of those formerly incarcerated would meet the eligibility criteria for Medicaid⁷, therefore it is expected that the majority of those released from CDCR post-ACA are eligible to enroll in Medi-Cal. With the overarching question of this study being whether the ACA impacted individuals formerly incarcerated with CDCR, the entire release cohort from CDCR across the study time period (2012-2016) was included when analyzing the percent that accessed services through Medi-Cal. If the study had included only those individuals enrolled in Medi-Cal, changes associated with Medi-Cal's expanded eligibility criteria would not have been apparent. Matching data for the entire CDCR release cohort to Medi-Cal eligibility data for each calendar year resulted in a range of matches. The percentage of matches increased from 25% in 2012 to 61% in 2016 of CDCR's release cohort having at least one Medi-Cal enrollment month. Although the CDCR release cohort included approximately 176,000 individuals, some of these individuals were released multiple times from a CDCR institution between 2012 and 2016. Ninety percent of individuals had one release date during the study time period, while 9.7% had two releases, and less than 1% had three or more releases from a CDCR

institution between 2012 and 2016. As highlighted in table 1, data for each time of release from a CDCR institution included demographic information such as sex, age at release, and race/ethnicity. Mental health designation, also included in CDCR's dataset, is a CDCR mental health category assigned to individuals while incarcerated. Enhanced Outpatient Program (EOP) is defined by CDCR as a mental health service designation applied to severely mentally ill inmates receiving treatment at a level similar to day treatment services.⁸ Correctional Clinical Case Management System (CCCMS), another category within CDCR's mental health designation, facilitates mental health care by linking inmate/patients to needed services. CCCMS services are provided as outpatient services within the general population setting at all institutions.⁹ The other mental health designations include Mental Health Crisis Bed and Department of State Hospitals (DSH).

Figure 1. Percent of CDCR Release Cohort Matched to Medi-Cal Eligibility Data, 2012-2016



Data Source: Analysis of CDCR and Medi-Cal 2012-2016 data from the CDCR/DHCS Medi-Cal Utilization Project

Additional descriptive variables in CDCR's dataset used for this study included the county individuals were released to and individual's substance abuse need as measured by the Correctional Offender Management Profiling for Alternative Sanctions (COMPAS). Due in large part to Assembly Bill 109, commonly referred to as Public Safety Realignment, there was a decrease in the number of individuals incarcerated at CDCR and a subsequent decline in the number of individuals released between 2012 and 2016 from 48,059 individuals to 33,387 individuals (see Table 1). Despite these declines, the

Table 1. Demographic Profile of CDCR Release Cohort, 2012-2016

	Calendar Year of Release from CDCR									
	2012		2013		2014		2015		2016	
	No.	%	No.	%	No.	%	No.	%	No.	%
Total Number of Individuals Released	48,059	100%	34,946	100%	37,023	100%	39,783	100%	33,387	100%
Sex										
Male	43,884	91%	32,609	93%	34,542	93%	36,983	93%	31,128	93%
Female	4,167	9%	2,334	7%	2,480	7%	2,799	7%	2,259	7%
Age at Release										
18-23	5,777	12%	4,245	12%	4,301	12%	4,371	11%	3,761	12%
24-34	19,118	40%	13,018	37%	14,036	38%	15,487	40%	13,484	39%
35-44	11,684	24%	8,155	23%	9,033	24%	9,755	25%	8,257	24%
45-54	8,565	18%	6,651	19%	6,737	18%	6,988	16%	5,207	18%
55 and over	2,907	6%	2,874	8%	2,915	8%	3,181	18%	2,677	7%
Race/Ethnicity										
Hispanic	19,977	42%	14,432	41%	15,539	42%	16,817	42%	14,652	44%
Black	12,136	25%	9,155	26%	9,427	25%	9,895	25%	8,149	24%
White	13,204	27%	9,194	26%	9,565	26%	10,501	26%	8,568	26%
Asian/Pacific Islander	510	1%	407	1%	440	1%	510	1%	481	1%
American Indian/Alaskan Native	459	1%	344	1%	418	1%	423	1%	379	1%
Other	1,765	4%	1,411	4%	1,633	4%	1,636	4%	1,158	3%
Mental Health Designation										
Enhanced Outpatient Program (EOP)	1,256	3%	1,000	3%	1,231	3%	1,473	4%	1,396	4%
Correctional Clinical Case Management System (CCCMS)	7,534	16%	5,942	17%	6,850	19%	7,477	19%	6,506	19%
Other Mental Health Designations	90	0.2%	71	0.2%	76	0.2%	106	0.3%	146	0.4%
None/No Mental Health Code	39,179	82%	27,933	80%	28,866	78%	30,727	77%	25,339	76%

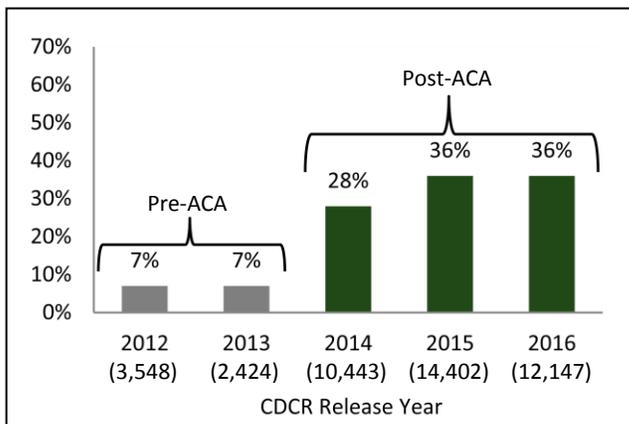
Data Source: Analysis of CDCR data, 2012-2016

demographic makeup of the release population remained relatively unchanged with the majority of those released in 2016 being male (93%), age 24-34 years (39%), and Hispanic (44%). The corresponding linked Medi-Cal administrative claims data consisted of individual claims data between 2012 and 2016; this data included demographic, enrollment, and provider information as well as service domain (physical, behavioral, or dental) and delivery system (fee-for-service, managed care, or specialty mental health).

Has Medi-Cal utilization increased among California's formerly incarcerated?

Figure 2 shows the ACA has had a marked impact on the receipt of Medi-Cal services by individuals formerly incarcerated with CDCR. In 2012, 7% of all individuals released from a CDCR institution received at least one Medi-Cal service compared to 28% during the first year of expanded Medi-Cal eligibility. The percentage of individuals receiving Medi-Cal services continued to increase, growing to 36% in 2016. Although the number of individuals who received a Medi-Cal service declined slightly from 2015 to 2016 from 14,402 to 12,147, the percentage receiving services remained stable at 36%.

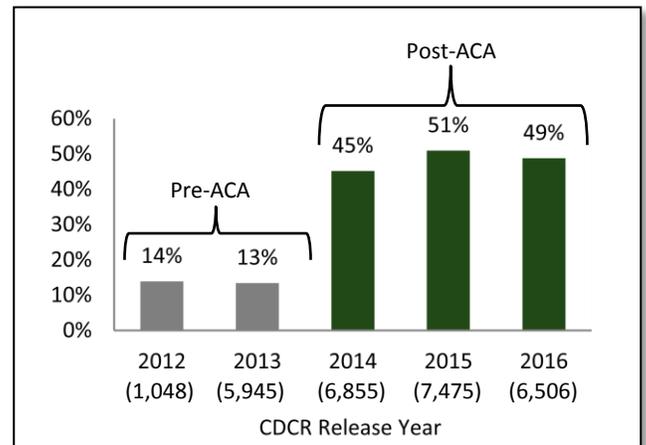
Figure 2. Percent of CDCR Release Cohort Receiving at Least One Medi-Cal Service, 2012-2016



Data Source: Analysis of CDCR and Medi-Cal 2012-2016 data from the CDCR/DHCS Medi-Cal Utilization Project
 *Numbers in parentheses represent the number of individuals receiving at least one Medi-Cal service during a CDCR release year.

The percentage of individuals designated by CDCR as CCCMS who received Medi-Cal services in the same year of their release showed similar increases in utilization to the overall release cohort. As illustrated in figure 3, 49% of individuals designated as CCCMS received at least one Medi-Cal service in 2016; this was an increase from 14% in 2012. The difference in the percent served between pre-ACA (2012) and post-ACA (2016) was larger at 35 percentage points for CCCMS designees compared to the overall release population of 29%.

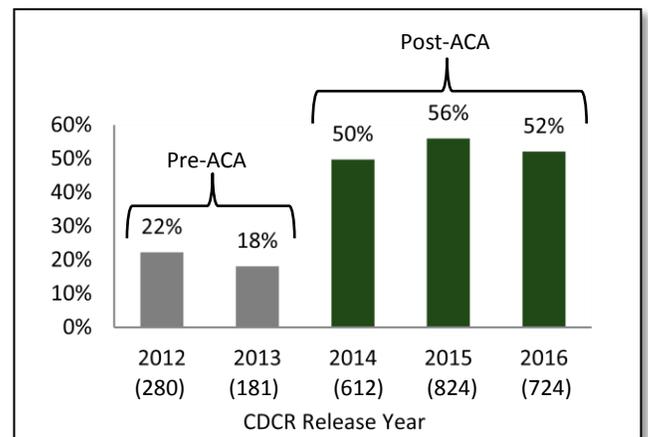
Figure 3. Percent of CDCR Release Cohort Designated as CCCMS Receiving at Least One Medi-Cal Service, 2012-2016



Data Source: Analysis of CDCR and Medi-Cal 2012-2016 data from the CDCR/DHCS Medi-Cal Utilization Project
 *Numbers in parentheses represent the number of individuals receiving at least one Medi-Cal service during a CDCR release year.

Individuals designated as EOP demonstrated comparable utilization post-ACA in 2016 (52%) as CCCMS designees (49%); however, growth in utilization differed for these two populations between pre-ACA and post-ACA. The percentage of all EOP designees released who received at least one Medi-Cal service increased from 22% in 2012 to 52% in 2016. This increase in utilization reflected a 30 percentage point difference and was somewhat less (-5) than the change experienced by CCCMS designees.

Figure 4. Percent of CDCR Release Cohort Designated as EOP Receiving at Least One Medi-Cal Service, 2012-2016



Data Source: Analysis of CDCR and Medi-Cal 2012-2016 data from the CDCR/DHCS Medi-Cal Utilization Project
 *Numbers in parentheses represent the number of individuals receiving at least one Medi-Cal service during a CDCR release year.

Table 2. Percent of CDCR Release Cohort Reporting a Substance Abuse Treatment Need, PRCS, and Parolee that Received at Least One Medi-Cal Service, 2012-2016

	Calendar Year of Release from CDCR														
	2012			2013			2014			2015			2016		
	No. Receiving Services	No. Released	%	No. Receiving Services	No. Released	%	No. Receiving Services	No. Released	%	No. Receiving Services	No. Released	%	No. Receiving Services	No. Released	%
Substance Abuse Treatment Need	1,079	14,152	8%	782	11,055	7%	4,491	13,889	32%	6,622	16,184	41%	5,478	13,248	41%
Paroled	924	16,060	6%	861	15,486	6%	4,113	16,925	24%	6,783	20,057	34%	5,690	16,526	34%
Post Release Community Supervision (PRCS)	2,434	29,904	8%	1,408	18,304	8%	6,163	19,642	31%	7,341	19,067	39%	6,451	16,823	38%

Data Source: Analysis of CDCR and Medi-Cal 2012-2016 data from the CDCR/DHCS Medi-Cal Utilization Project

Table 2 shows the percentage of Medi-Cal utilization among several sub-groups within CDCR’s release cohort, specifically, individuals who reported a substance abuse treatment need while incarcerated and type of release (i.e. paroled or post release community supervision, PRCS). Individuals who reported having a high to highly probable substance abuse treatment need showed significant growth in Medi-Cal utilization post-ACA; increasing from 8% in 2012 to 41% in 2016. Individuals who were released on parole experienced the smallest increases in utilization. This group started with the smallest percentage of Medi-Cal utilization at 6% in 2012 and continued to show the smallest percentage of utilization with 34% in 2016, resulting in a change in the percent of utilization of 28%. The percentage of individuals released from CDCR as PRCS showed a somewhat larger expansion in utilization compared to parolees with a change in the percent of utilization of 30 percentage points between 2012 and 2016. Utilization in 2016 among this group was also slightly higher than parolee utilization in 2016 at 38%.

Medi-Cal utilization by California counties

The number and percentage of formerly incarcerated individuals who received Medi-Cal services varied considerably across the state. In 2012, the county release population, including both PRCS and parole, ranged from 14,667 in Los Angeles County to 11 in Imperial County (see appendix A). Data in appendix A was suppressed for any county having less than 11 individuals who received services. Los Angeles County comprised 31% of the release population in 2012 and approximately 1,100 of CDCR’s formerly incarcerated received a Medi-Cal service in this county. Although the greatest number of individuals received services in Los Angeles County in 2012, Lake County and Humboldt County had the highest percentage of individuals served at 16% and 15% respectively (see figure 5). Riverside County had the smallest percentage of individuals who received a Medi-Cal service at 5%.

As previously noted, the release population declined significantly between 2012 and 2016. In 2016, the county release population ranged from 9,660 in Los Angeles County to 12 in Colusa and Glenn County. While slightly less than 2012, Los Angeles County continued to represent the largest percent of the release population at 29%, with approximately 3,300 individuals receiving Medi-Cal services in 2016 in this county. As shown in figure 5, the percentage of individuals receiving Medi-Cal services within each county ranged from 29% for Del Norte County to 60% for Butte and Nevada County.

Ten counties accounted for roughly three-quarters of the individuals who received services in 2016 (see table 3). Los Angeles served 27% of the total number of formerly incarcerated who received services in 2016, with San Bernardino serving the next largest at 9%.

As illustrated in figure 5, **there was significant growth in utilization from 2012 (pre-ACA) to 2016 (post-ACA) for 50 of the 58 counties in California.** The rise in the percent of individuals receiving Medi-Cal services ranged from 60% (Nevada County) to 19% (Humboldt County). Similar to Nevada County, the counties that experienced the largest increases in the percent of individuals receiving services were small. The top five counties that showed the largest change in the percent of formerly incarcerated served included Nevada (+60%), Siskiyou (+55%), Mariposa (+54%), Colusa (+48%), and Napa (+46%). These smaller counties accounted for little more than 200 of the individuals released from CDCR in 2016. Among the ten largest counties in 2012 and 2016 that comprised the highest number of released individuals, the change in individual’s receipt of Medi-Cal services ranged from +38% (San Diego County) to +25% (Orange County).

Percentage of CDCR Release Cohort Receiving at Least One Medi-Cal Service by County, 2012

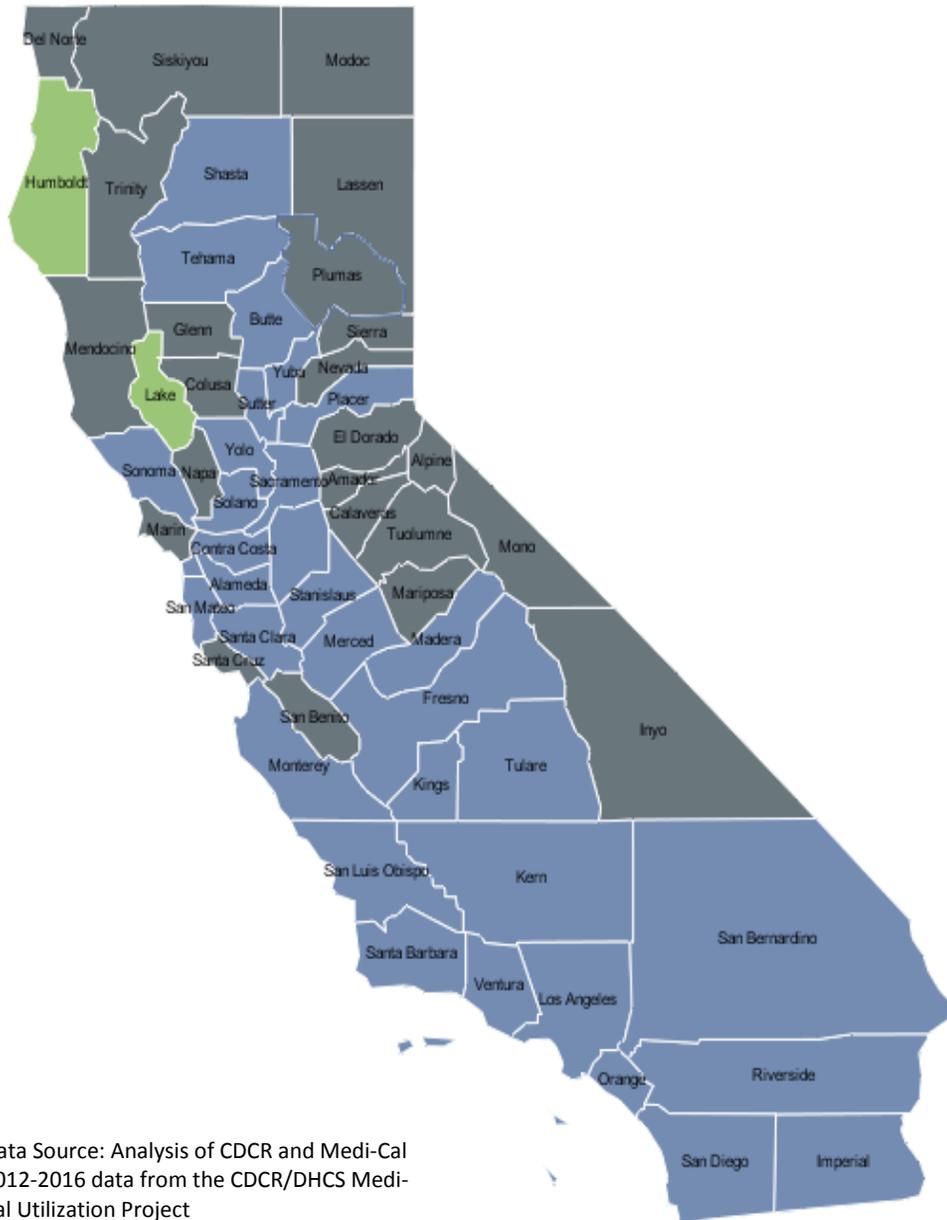
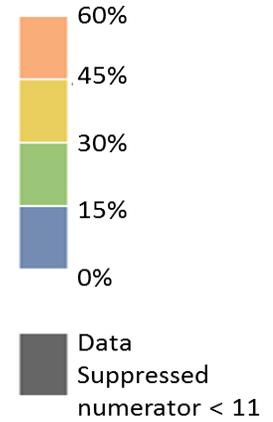
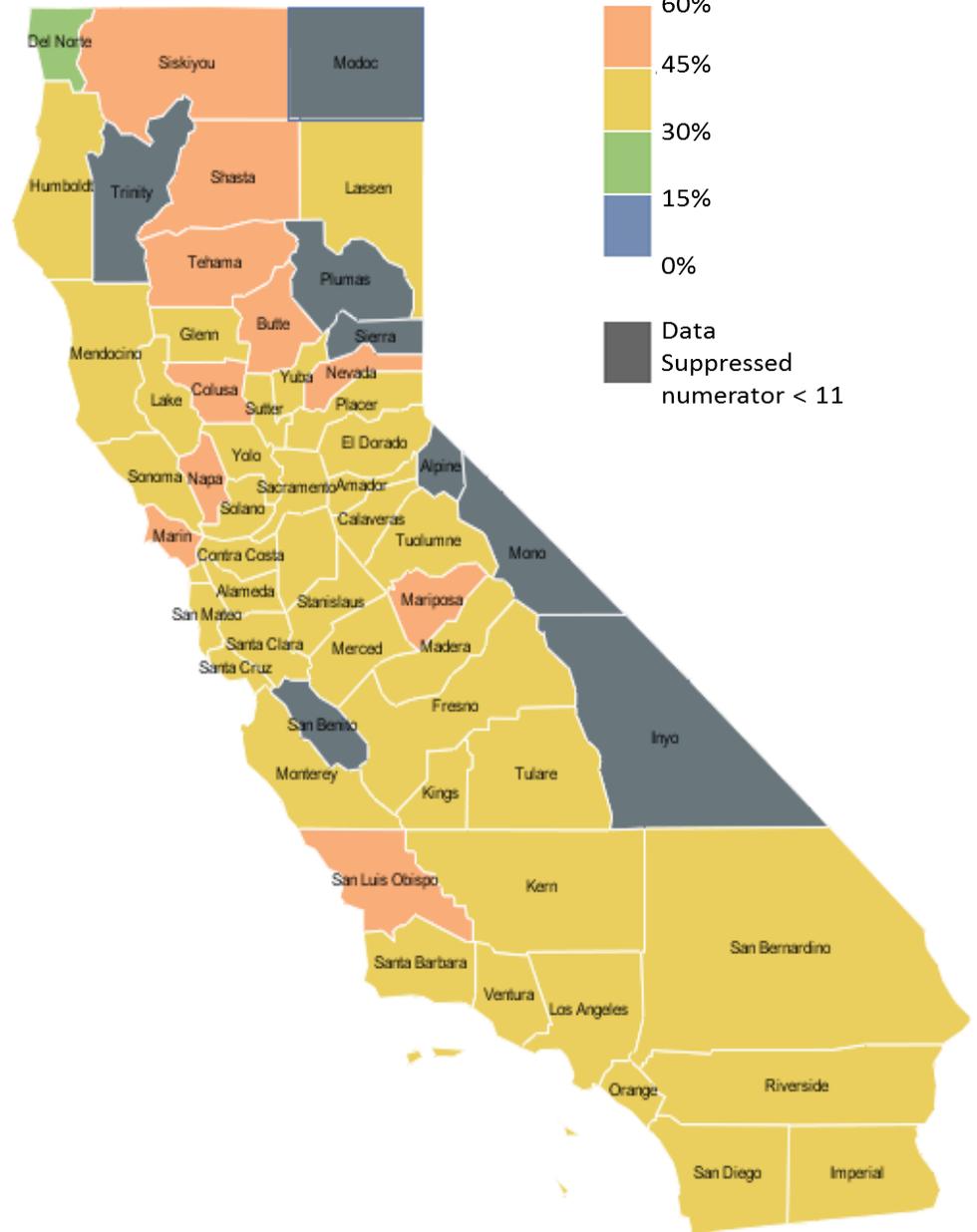


Figure 5.

Percentage of CDCR Release Cohort Receiving at Least One Medi-Cal Service by County, 2016



Data Source: Analysis of CDCR and Medi-Cal 2012-2016 data from the CDCR/DHCS Medi-Cal Utilization Project

Medi-Cal utilization for PRCS and Paroled by California counties

Appendix B details Medi-Cal utilization for individuals released on parole or PRCS in 2016. Data in appendix B was suppressed for any county having less than 11 individuals who received services. Among the paroled in 2016, the percent of individuals receiving Medi-Cal services within each county ranged from 59% (Shasta) to 26% (Madera), while the number of individuals receiving services ranged from 1,590 (Los Angeles) to 12 (Marin). The top five counties with the highest percentage of individuals receiving services were Shasta (59%), Lake (55%), Butte (55%), Siskiyou (52%), and Tehama (49%). These smaller counties accounted for approximately 400 of the individuals released from CDCR in 2016. The counties that had the largest number of individuals receiving a Medi-Cal service were Los Angeles (1,590), San Bernardino (475), San Diego (452), Riverside (395), and Orange (309).

Table 3. CDCR Release Cohort Receiving at Least One Medi-Cal Service: Top Ten Counties 2016

	No. Receiving Services	Individuals Served in County as Percentage of Total Cohort Served
Total Number of Individuals Receiving Services	12,147	100%
County		
1. Los Angeles	3,272	27%
2. San Bernardino	1,080	9%
3. San Diego	965	8%
4. Riverside	862	7%
5. Sacramento	578	5%
6. Orange	545	4%
7. Fresno	536	4%
8. Kern	496	4%
9. Santa Clara	328	3%
10. San Joaquin	282	2%
Top Ten Subtotal	8,944	74%

Data Source: Analysis of CDCR and Medi-Cal 2012-2016 data from the CDCR/DHCS Medi-Cal Utilization Project

The percentage of the PRCS population within each county who received a Medi-Cal service ranged from 69% (Nevada) to 28% (Alameda), with the number of individuals receiving services ranging from 1,679 (Los Angeles) to 11 (Nevada). In addition to Nevada County, individuals released as PRCS to Butte (64%), Siskiyou (60%), San Luis Obispo (58%), and Imperial (54%) counties showed the highest percentages of Medi-Cal utilization. Similar to the parole county map, these counties accounted for fewer than 400 individuals or 2% of the PRCS release population.

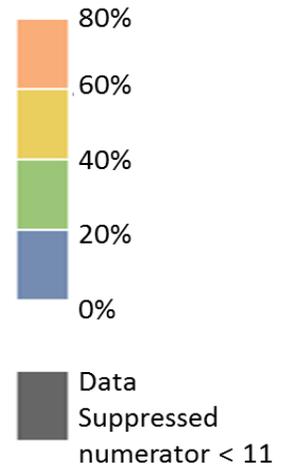
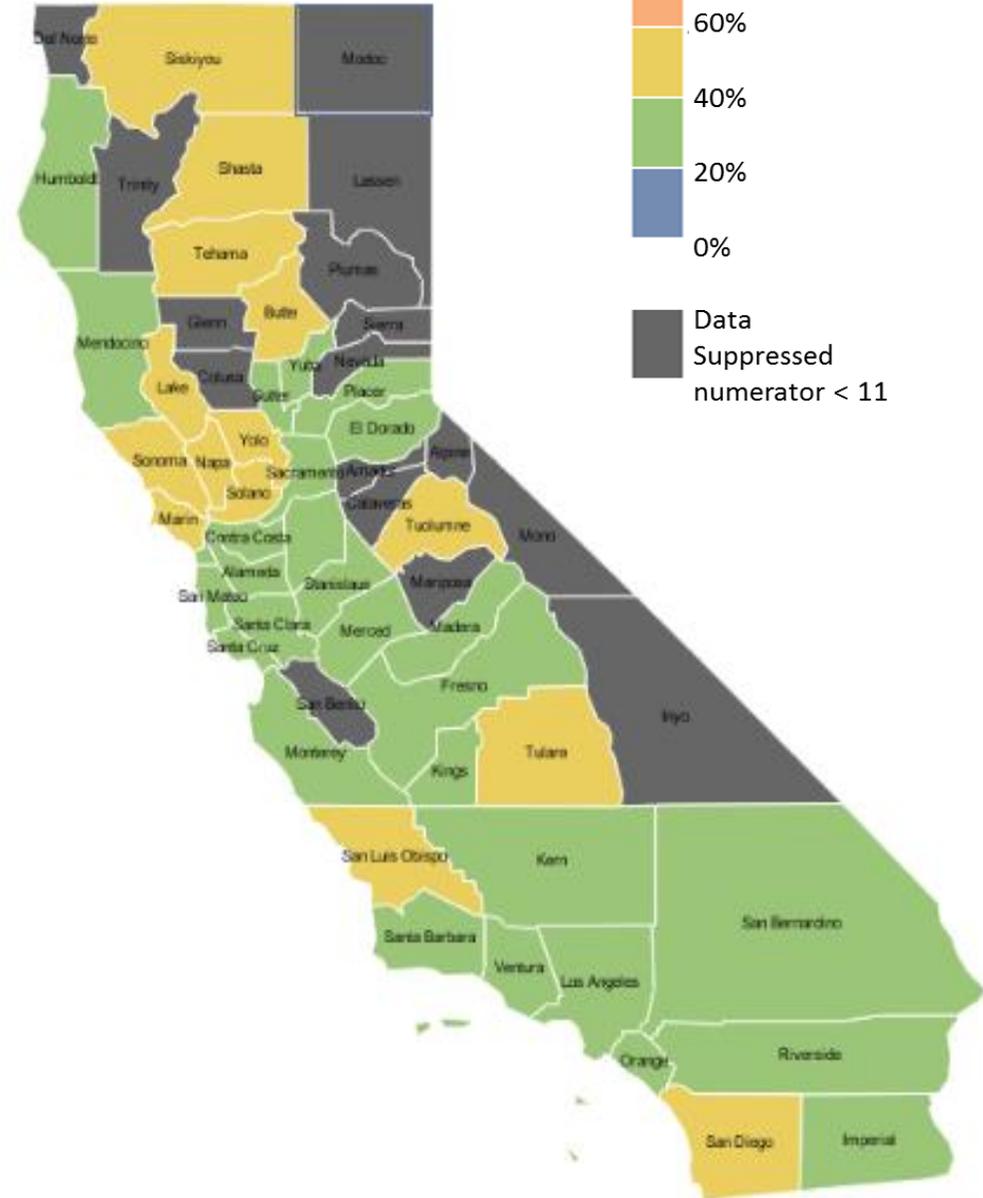
Among the counties illustrated in Figure 6, differences were shown when comparing PRCS and paroled populations in the percentage of individuals who received services in 2016. Within each county, differences as large as 19% were found when comparing counties that included enough data to be shown for both the PRCS and paroled population (i.e. numerator < 11). For instance, the percentage of individuals released as PRCS (54%) in Imperial County who received services was 19 percentage points higher compared to the percentage served of the paroled population (35%), while the percentage of individuals paroled to Lake County who received Medi-Cal services (55%) was 19 percentage points higher compared to the percentage of the PRCS population that received services (36%). Despite the range of differences found when comparing the percentage of PRCS and paroled individuals receiving a Medi-Cal service within each county, overall among the forty-two counties shown in figure 6 **the percentage of PRCS individuals receiving services was higher in twenty-eight of these counties compared to the percentage of paroled individuals that received services. In contrast, the percentage of individuals paroled that received a Medi-Cal service was higher in ten of the forty-two counties** shown in figure 6 when compared to the percentage of the PRCS population served.

Figure 6.

Percentage of PRCS's Receiving at Least One Medi-Cal Service by County, 2016



Percentage of Parolees Receiving at Least One Medi-Cal Service by County, 2016



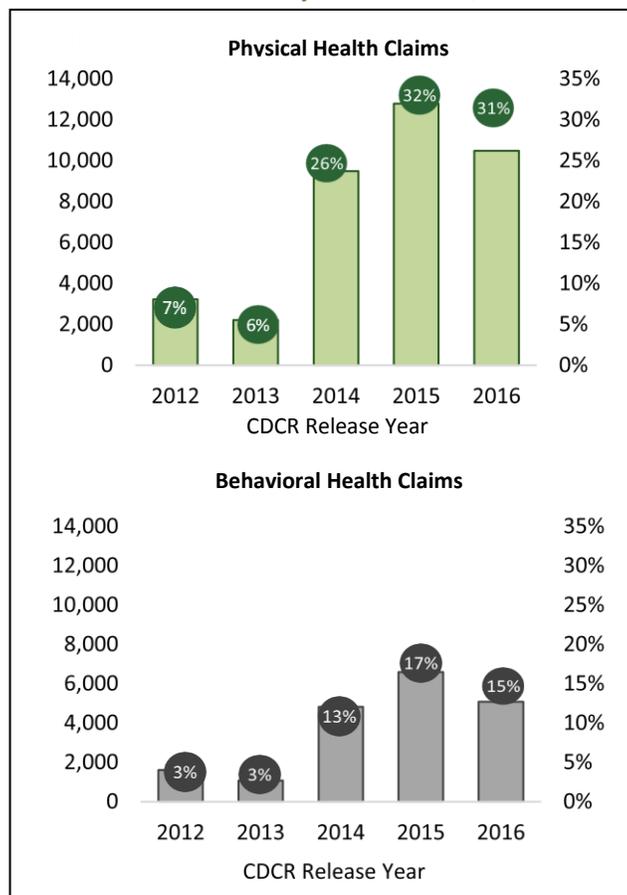
Data Source: Analysis of CDCR and Medi-Cal 2012-2016 data from the CDCR/DHCS Medi-Cal Utilization Project

Physical and Behavioral Health Medi-Cal Services

Figure 7 highlights the types of services received by individuals released from CDCR prior to and immediately following the ACA Medi-Cal expansion. The delivery system was identified based on the type of claims paid by Medi-Cal including managed care, fee-for-service, and specialty mental health claims. The ICD-9¹⁰ and ICD-10 codes¹¹ associated with each claim were divided into two categories: 1) physical health claims and 2) behavioral health claims. The physical health claim category included all non-behavioral health claims as classified by the corresponding ICD-9/ICD-10 code. Also included in the physical health claims category were a small percentage of dental claims. Examples of physical health claims included diabetes treatment services, hypertension prescription medication, or a pregnancy test. The behavioral health claims category included codes from the “Mental Disorders” and “Mental and Behavioral Disorders” chapters of the International Statistical Classification of Diseases and Related Health Problems 9th and 10th Revision, respectively. Examples of behavioral health claims included schizophrenia services, bipolar prescription medication, or counseling services.

Results for the two service type categories are shown in figure 7. The percentage of individuals released from CDCR who accessed a physical health service in the year of their release increased markedly between 2013 (6%) and 2014 (26%). This percent continued to increase to 32% in 2015 and 31% in 2016. Although the percentage grew from pre-ACA to post-ACA, the number of individuals receiving a physical health service declined between 2015 (12,700) and 2016 (10,500).

Figure 7. Percent Physical and Behavioral Health Claims for all Formerly Incarcerated, 2012-2016



Data Source: Analysis of CDCR and Medi-Cal 2012-2016 data from the CDCR/DHCS Medi-Cal Utilization Project

Table 4. Percent Physical and Behavioral Health Claims for Individuals Designated as EOP and CCCMS, 2012-2016

	Calendar Year of Release from CDCR									
	2012		2013		2014		2015		2016	
	No.	%	No.	%	No.	%	No.	%	No.	%
Enhanced Outpatient Program (EOP)	1,256	--	1,000	--	1,231	--	1,473	--	1,396	--
EOP's w/ Physical Health Claims	243	19%	148	15%	505	41%	690	47%	618	44%
EOP's w/ Behavioral Health Claims	228	18%	147	15%	499	41%	658	45%	509	36%
Correctional Clinical Case Management System (CCCMS)	7,534	--	5,942	--	6,850	--	7,477	--	6,506	--
CCCMS's w/ Physical Health Claims	910	12%	688	12%	2,651	39%	3,267	44%	2,691	41%
CCCMS's w/ Behavioral Health Claims	674	9%	511	9%	2,052	30%	2,495	33%	1,914	29%

Data Source: Analysis of CDCR data, 2012-2016

While the growth in the percentage of individual's receiving a physical health service was 20 percentage points between 2013 and 2014 figure 7 shows that the change in the percent of individuals receiving a behavioral health service was 10 percentage points between 2013 and 2014. **The overall number and percentage of formerly incarcerated individuals using behavioral health services was less compared to the physical health service category.** However, there was an increase in the behavioral health category from 2012 (3%) to 2016 (15%).

Table 4 shows the number and percent of EOP designees and CCCMS designees that utilized physical and behavioral health services in the year of their release. Individuals designated as CCCMS showed a notable change in accessing physical health services, increasing from 12% in 2012 (pre-ACA) to 41% in 2016 (post-ACA). Although less dramatic, the percentage utilizing behavioral health services also grew from 9% in 2012 to 29% in 2016.

The percentage of individuals designated as EOP utilizing physical and behavioral health services increased following the ACA Medicaid expansion. Utilization of physical health services in 2012 among EOP designees (19%) was higher compared to individuals designated as CCCMS. EOP designees continued to access physical health services at a higher percent compared to CCCMS designee's post-ACA with 44% in 2016 using these services.

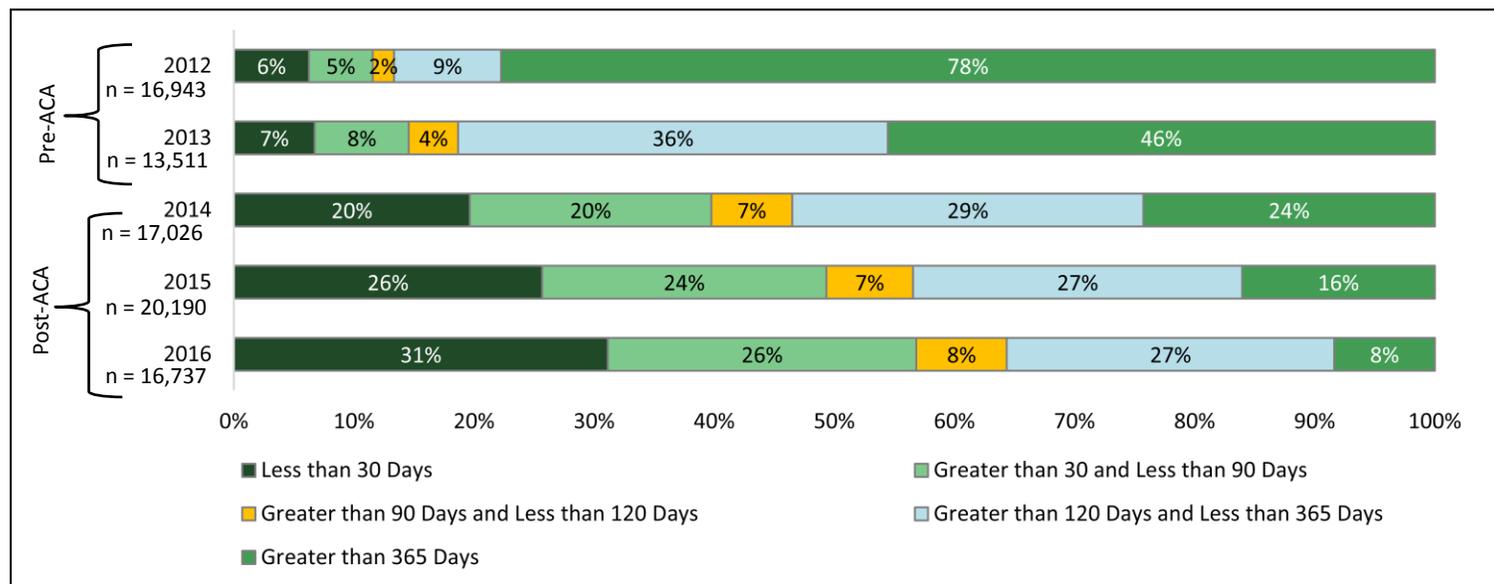
Somewhat similar, the pattern and percentage of utilization of behavioral health services by EOP designees was higher in 2012 (pre-ACA, 18%) and 2016 (post-ACA, 36%) than utilization by CCCMS designees.

Despite the higher percentage of utilization among EOP designees, the difference pre-ACA (2012) and post-ACA (2016) in the percentage of services used was slightly higher for CCCMS designees compared to EOP designees. With CCCMS designees showing a 29 percentage point difference in utilization of physical health services and a 20 percentage point difference for behavioral health services pre-ACA (2012) compared to post-ACA (2016) and EOP designees having a 25 percentage point difference in utilization of physical health services and a 18 percentage point difference for behavioral health services across the same time period.

Time to Receive Services Post-Release

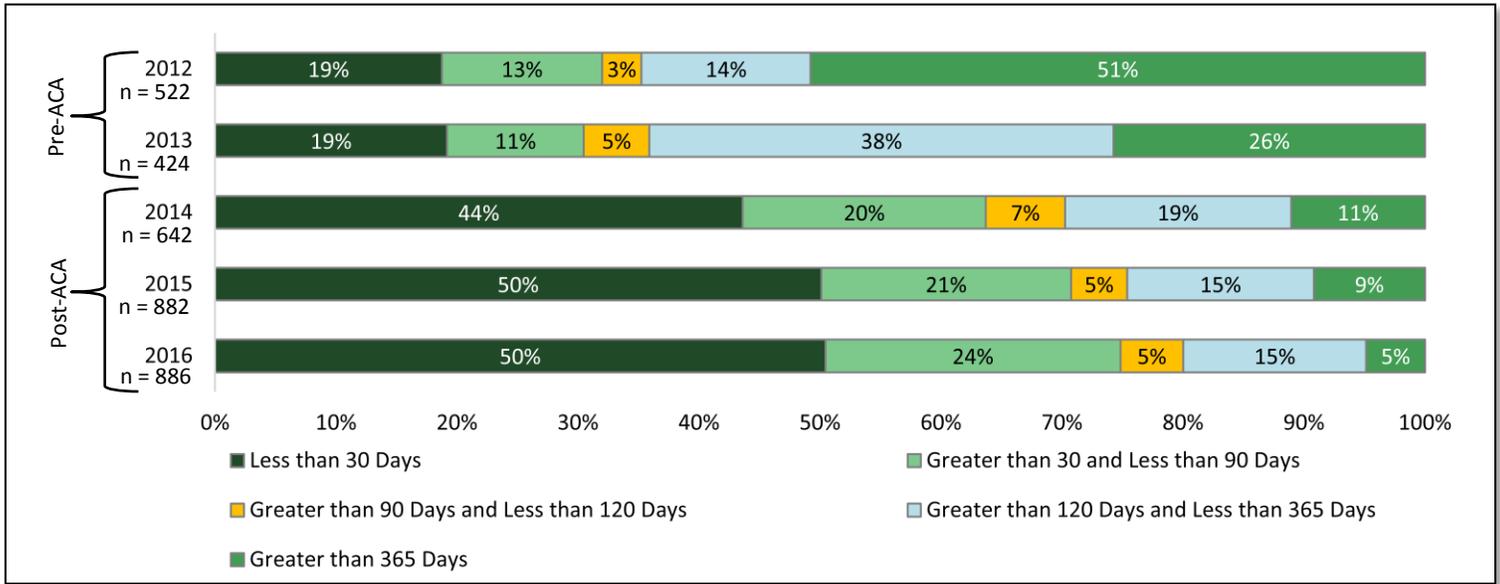
Figure 8 details the number of days between the first service accessed by individuals released from CDCR and their release date. **Prior to the ACA Medicaid expansion, the vast majority of individuals released from CDCR did not access a Medi-Cal service within the first 120 days of their release.** Instead, of those who received a service 86% in 2012 and 82% in 2013 received their first Medi-Cal service more than 120 days following their release.

Figure 8. Number of Days between Release and Receipt of First Medi-Cal Service by CDCR Release Year



Data Source: Analysis of CDCR data, 2012-2016
n = the number of individuals released that year who received a Medi-Cal Service

Figure 9. Number of Days between Release and Receipt of First Medi-Cal Service by CDCR Release Year for Individuals Designated as EOP

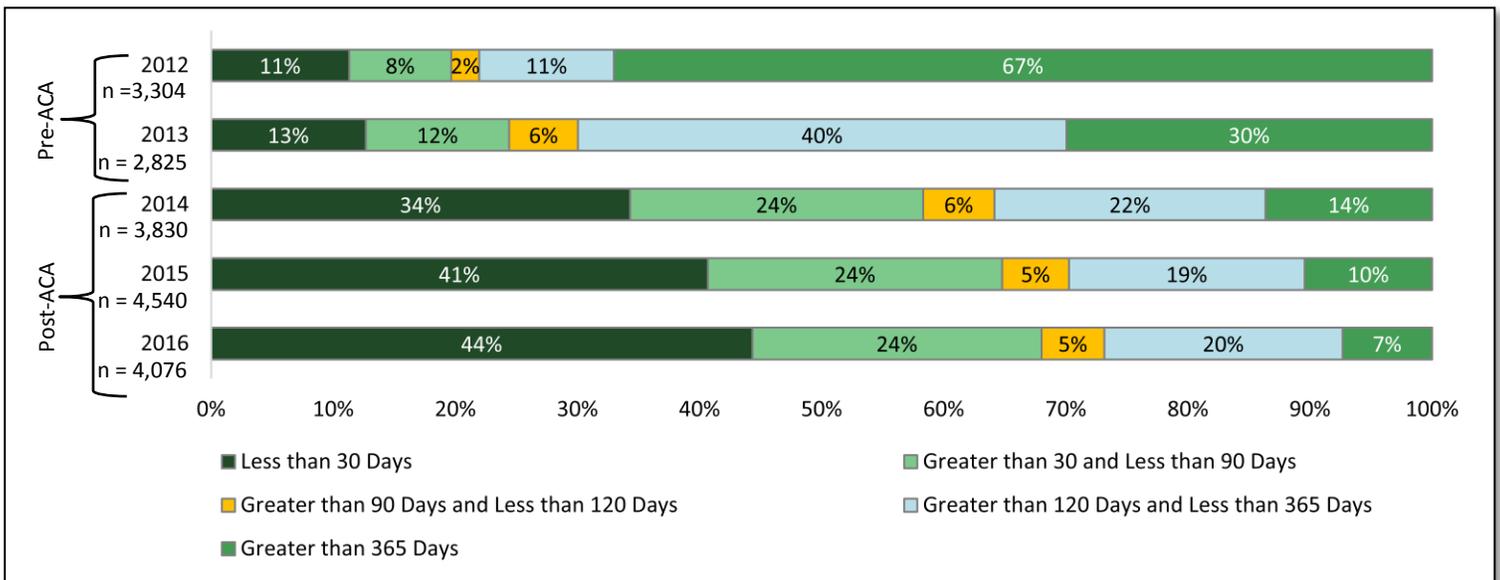


Data Source: Analysis of CDCR data, 2012-2016
 n = the number of individuals released that year who received a Medi-Cal Service

In the first year of the ACA expansion (2014), the percentage of individuals accessing services within the first 120 days of their release increased to 47%; with 40% of these individuals receiving their first service within 90 days post-release. Access to medical care continued to improve, with the majority (57%) of those who received a Medi-Cal service in 2016 receiving their first service within 90 days of their release.

Figure 9 highlights the magnitude of the ACA’s impact on individuals designated as EOP. While approximately one-third of EOP designees accessed their first Medi-Cal service within 120 days of their release from CDCR prior to the ACA expansion, post-ACA (2016) three-quarter’s of EOP designees who received a Medi-Cal service received their first service within 120 days following their release.

Figure 10. Number of Days between Release and Receipt of First Medi-Cal Service by CDCR Release Year for Individuals Designated as CCCMS



Data Source: Analysis of CDCR data, 2012-2016
 n = the number of individuals released that year who received a Medi-Cal Service

Similar to EOP designees, individuals classified as CCCMS also showed a significant rise in the percentage of individuals accessing their first Medi-Cal service following the ACA Medicaid expansion. Pre-ACA (2012), 21% of CCCMS designees received their first service within 120 days of their release from CDCR. This percentage grew to nearly three-quarter's of CCCMS designees who received a Medi-Cal service post-ACA (2016) received this service within 120 days of their release.

The location where individuals released from CDCR received their first Medi-Cal service is detailed in table 5. Specifically in 2012, of those who received a Medi-Cal service within 120 days of their release and whose claim record indicated a location of service, 19% received their first service in the Emergency Room, while the majority accessed their first service in an Office, Lab, or Clinic (43%). These two location categories continued to represent the highest percentage of where individuals accessed services. In the first year of the ACA Medicaid expansion (2014), the percentage of individuals receiving their first Medi-Cal service from an Emergency Room increased to 25%, however, this percentage declined slightly to 21% in 2016. The percentage of individuals whose initial service was at an Office, Lab, or Clinic increased to 53% in 2016.

Discussion and Conclusion

Findings from this evaluation of individuals released from CDCR between 2012 and 2016 show that the ACA had a significant impact on the formerly incarcerated population with these individuals experiencing positive gains in health care access and service utilization immediately following the expansion of Medi-Cal.

Increases in access to health care services were apparent in the percentage of individuals matched to Medi-Cal's database, as a larger percentage of CDCR's release cohort were enrolled in at least one month of the Medi-Cal program following Medi-Cal's expansion. Although the impact of AB 109 was clear with the reduction of the number of individuals incarcerated¹² resulting in a decline in the number of individuals released from CDCR, the general demographic make-up of those released remained unchanged and the proportion of those released receiving Medi-Cal services also appeared to stabilize from 2014 to 2016.

As expected, individuals with a mental health designation experienced the greatest impact from Medi-Cal's expansion. While EOP designees had the highest percentage of Medi-Cal utilization in 2016, **individuals designated as CCCMS experienced the largest growth in utilization compared to all other subgroups in CDCR's release population.** The latter result likely reflects the impact of the expanded preventative health benefits that required mental health and substance use disorder services be covered as essential health benefits; this included mild to moderate mental health services not previously provided by Medi-Cal.

Interestingly, the lowest percentage of individuals receiving services by county in 2016 (29%) was notably higher than the largest percentage of individuals who were served in 2012 (16%).

Table 5. Location Where First Service was Received, 120 days Post-Release (2012-2016)

	Calendar Year of Release from CDCR									
	2012		2013		2014		2015		2016	
	No.	%	No.	%	No.	%	No.	%	No.	%
Total Number of Individuals who Received a Service in the First 120 Days Post Release	2,093	--	2,380	--	7,618	--	10,569	--	9,900	--
Emergency Room	394	19%	468	20%	1,879	25%	2,322	22%	2,114	21%
Inpatient Hospital	157	8%	130	5%	391	5%	598	6%	585	6%
Outpatient Hospital	195	9%	213	9%	537	7%	966	9%	937	9%
Nursing Facility/Home	20	1%	*	--	11	0.1%	36	0.3%	61	1%
Office, Lab, Clinic	892	43%	1,001	42%	3,408	45%	5,465	52%	5,239	53%
Other	435	21%	*	--	1,392	18%	1,182	11%	964	10%

Data Source: Analysis of CDCR and Medi-Cal 2012-2016 data from the CDCR/DHCS Medi-Cal Utilization Project

* Data suppressed, No. receiving services (i.e. numerator) < 11

** "Other" includes locations such as Tribal 638 Free-standing Facility, Urgent Care, and Federally Qualified Health Center

This latter point once again underscores the significant impact the ACA has had on the justice involved population in regards to their health care access and utilization. Also notable, was that some of the largest growth in service utilization occurred for counties with the smallest numbers of individuals released from CDCR.

Similar to patterns shown for the entire release cohort, both parolees and PRCS's experienced increases in service utilization between 2012 and 2016 within nearly all 58 California counties.

When comparing the percentage of those released as PRCS and parole and their receipt of services, across the majority of counties a higher percentage of PRCS's received at least one Medi-Cal service. This finding could be attributed to paroled individual's access to Parole Outpatient Clinics (POC). POC's provide parolees with mental health services including evaluations for mental illness, medication management, individual and group therapy, crisis intervention, and case management.¹³ Many of the mental health services provided by POC's would normally be accessed through the Medi-Cal program, therefore it may be that paroled individuals have similar service utilization to that of individuals released as PRCS and the percentage shown in this study underrepresents parolee utilization of health care services.

In examining the services received, physical or behavioral health, we found that a higher percentage of individuals released accessed physical health services rather than behavioral health; though there was an increase in utilization for both types of services following ACA's expansion. Utilization of behavioral health services was higher among individuals with a mental health designation, and highest among those designated as EOP. This is not surprising, indeed it's encouraging, that ***post-ACA nearly 50% of those who had the greatest need for mental health services were able to access and utilize these services.***

The consequences of not having access to needed health services shortly after being released from prison can be steep. Previous research has shown that in the first two weeks of being released from prison that the risk of death for the formerly incarcerated is 12 times that of non-institutionalized individuals.¹⁴ With the leading causes of death for these individuals found to be drug overdose,

cardiovascular disease, homicide, and suicide.¹⁵ Therefore not only is having access to health care important, but the timeliness of receiving services is also a critical factor. As with our other findings, ***the expansion of Medi-Cal had the immediate impact of shortening the time between release from a CDCR institution to receipt of a Medi-Cal service. This was particularly true for those with a mental health designation, with 73% to 79% of these individuals receiving a service within 120 days of release.*** TCMP can likely be credited with the substantial improvement shown in the timeliness of receiving services post-release, as the program aims to ensure individuals leaving CDCR have been enrolled and can access all programs they are eligible for.

One major concern regarding the formerly incarcerated population is the burden these individuals place on Emergency Departments (ED). We found that although the percentage of individuals accessing the ED increased following the ACA expansion, by 2016 this percentage had declined. While ED visits declined, the percentage of those formerly incarcerated receiving their first service at an Office, Lab, or Clinic increased in 2016. Despite these increases, Office, Lab, and Clinic visits represented approximately half of where individuals received their first service. As noted earlier, the first contact with the health care system following release from prison can be critical. Ideally, to support continuity of care and cost efficiency, the first service should not be at an ED, but instead an Office visit. To further help individuals as they transition from CDCR to the community, individuals could choose their health plan and provider prior to being released. This would allow CDCR to transfer individuals' health records to their selected provider as well as schedule a first appointment.

This study was able to show the ACA expansion of Medi-Cal had a significant impact on the formerly incarcerated, however there are several limitations of this study and the data used that should be acknowledged. First, this study only has health care access and utilization data on those who enrolled in Medi-Cal. It is possible, that those who were not enrolled in Medi-Cal were insured through California's health care exchange system, had private employer based insurance, or were uninsured.

Second, this study lacked information on factors that might influence health care utilization such as social support, transportation difficulties, or homelessness. Despite these limitations, results from this study add to the body of research that has shown the important role the ACA has on the formerly incarcerated population. The ACA Medi-Cal expansion not only improved public health in California and as research has identified in other states, doing so likely improved public safety as well.¹⁶

Policy Implications

In CCJBH's 2017 16th Annual report, we note that CCJBH has made concerted efforts to better understand how the expansion of the ACA's Medi-Cal program is working to support prevention, diversion, and reentry efforts for individuals experiencing significant behavioral health challenges (mental health and substance use disorders).¹⁷ This study supports CCJBH efforts. Findings from this study provide research evidence to bolster many of the ACA specific recommendations made in the 2017 Annual Report (see CCJBH's 16th Annual report: Executive Summary for these recommendations)¹⁸. In particular, this paper reinforces the need to address gaps that exist between eligibility, enrollment, and service access. Having a better system that allows for immediate use of health benefits when exiting CDCR as well as a warm handoff between CDCR's health care system and a provider selected by the individual prior to leaving CDCR would facilitate lowering the percentage of individuals accessing the ED for their first service and ultimately increase the chances that individuals do not return to incarceration.

Next Steps

The primary goal of this study was to address the question of whether the ACA had an impact on the formerly incarcerated population in California. This study has shown that the answer to this question is a resounding yes. Next, we would like to better understand what kinds of services are used post incarceration, especially crisis services by those with serious mental illness, other behavioral health problems, and those with or without diagnosed behavioral health conditions. This includes studying if and how substance use disorder treatment services are accessed. In addition, now that we have established a baseline for service utilization among the formerly incarcerated, in future studies we aim to address whether health care access and utilization impacts recidivism. Additionally, in future studies we will investigate health disparities as they relate to the intersection between race/ethnicity and behavioral health

issues and examine the relationship between behavioral health and health service utilization. We will also continue to refine our linking methodology, building on the deterministic match used in this paper to also incorporate probabilistic matching methodologies. In addition, we will begin to dive deeper into specific issues such as crisis services utilized by those with behavioral health needs.

Lastly, we will explore substance use treatment services through county level data among counties that opted into the Drug Medi-Cal Organized Delivery System Pilot program and continue to examine the quality of behavioral health care received by the formerly incarcerated using mental health and substance use disorder specific Healthcare Effectiveness Data and Information Set (HEDIS) measures.

Appendix A. Percent of CDCR Release Cohort Receiving at Least One Medi-Cal Service by County, 2012 and 2016

County	Calendar Year of Release from CDCR					
	2012			2016		
	No. Receiving Services	No. Released	%	No. Receiving Services	No. Released	%
Los Angeles	1,096	14,667	7%	3,272	9,660	34%
San Bernardino	318	4,528	7%	1,080	3,131	34%
San Diego	197	3,509	6%	965	2,203	44%
Riverside	153	3,009	5%	862	2,390	36%
Sacramento	141	1,870	8%	578	1,586	36%
Orange	163	2,739	6%	545	1,759	31%
Fresno	123	1,711	7%	536	1,476	36%
Kern	148	1,917	8%	496	1,287	39%
Santa Clara	103	1,439	7%	328	892	37%
San Joaquin	84	1,020	8%	282	828	34%
Alameda	74	969	8%	214	713	30%
Tulare	74	756	10%	186	453	41%
Stanislaus	59	856	7%	183	526	35%
Butte	64	445	14%	180	300	60%
Ventura	39	673	6%	175	491	36%
Shasta	63	442	14%	173	346	50%
Monterey	42	532	8%	140	404	35%
Contra Costa	33	458	7%	121	368	33%
Solano	38	489	8%	119	287	41%
Santa Barbara	43	504	9%	117	297	39%
Kings	49	518	9%	116	342	34%
Sonoma	27	359	8%	116	274	42%
San Mateo	36	535	7%	114	345	33%
Merced	20	305	7%	108	280	39%
Placer	19	285	7%	102	260	39%
San Luis Obispo	28	244	11%	101	196	52%
Yolo	34	402	8%	89	210	42%
Imperial	11	153	7%	61	138	44%
Madera	16	222	7%	58	177	33%
San Francisco	41	395	10%	58	153	38%
Tehama	23	180	13%	58	121	48%
Lake	20	128	16%	53	126	42%
Sutter	15	166	9%	52	139	37%
Yuba	26	209	12%	50	134	37%
Humboldt	35	232	15%	36	107	34%
Mendocino	-	-	-	52	133	39%
El Dorado	-	-	-	49	119	41%
Santa Cruz	-	-	-	44	102	43%
Napa	-	-	-	39	85	46%
Tuolumne	-	-	-	32	79	41%
Marin	-	-	-	26	57	46%
Siskiyou	-	-	-	26	47	55%
Amador	-	-	-	18	44	41%
Nevada	-	-	-	18	30	60%
Lassen	-	-	-	16	37	43%
Calaveras	-	-	-	15	41	37%
Mariposa	-	-	-	14	26	54%
Del Norte	-	-	-	13	45	29%
Glenn	-	-	-	12	30	40%
Colusa	-	-	-	12	25	48%

Data Source: Analysis of CDCR data, 2012-2016

* Data suppressed, No. receiving services (i.e. numerator) < 11

Additional counties with suppressed data points include Alpine, Inyo, Modoc, Mono, Plumas, San Benito, Sierra, and Trinity.

Appendix B. Percent of PRCs's and Parolees Receiving at Least One Medi-Cal Service by County in 2016

County	Calendar Year of Release from CDCR					
	Paroled			Post Release Community Supervision (PRCS)		
	No. Receiving Services	No. Released	%	No. Receiving Services	No. Released	%
Los Angeles	1,590	5,116	31%	1,679	4,535	37%
San Bernardino	475	1,409	34%	605	1,720	35%
San Diego	452	1,112	41%	510	1,081	47%
Riverside	395	1,135	35%	467	1,254	37%
Fresno	207	608	34%	329	866	38%
Sacramento	255	702	36%	323	883	37%
Kern	203	539	38%	293	747	39%
Orange	309	1,003	31%	236	755	31%
Santa Clara	177	524	34%	151	368	41%
San Joaquin	135	400	34%	147	427	34%
Stanislaus	76	213	36%	107	312	34%
Butte	76	138	55%	104	162	64%
Ventura	75	232	32%	100	259	39%
Shasta	75	128	59%	98	218	45%
Alameda	131	416	31%	83	297	28%
Monterey	60	200	30%	80	204	39%
Tulare	108	253	43%	78	199	39%
Santa Barbara	47	146	32%	70	150	47%
San Mateo	47	172	27%	67	172	39%
Kings	50	169	30%	66	171	39%
Placer	37	96	39%	65	164	40%
San Luis Obispo	42	95	44%	59	101	58%
Contra Costa	65	209	31%	56	158	35%
Merced	53	160	33%	55	120	46%
Sonoma	62	129	48%	54	145	37%
Solano	65	138	47%	54	149	36%
Yolo	39	92	42%	50	118	42%
Madera	19	73	26%	39	104	38%
Imperial	23	66	35%	38	71	54%
Tehama	23	47	49%	35	74	47%
Lake	21	38	55%	32	88	36%
El Dorado	19	48	40%	30	71	42%
Mendocino	24	61	39%	28	72	39%
Sutter	25	75	33%	27	64	42%
Santa Cruz	19	49	39%	25	53	47%
Yuba	25	65	38%	25	69	36%
Humboldt	13	44	30%	23	63	37%
Napa	20	46	43%	19	39	49%
San Francisco	41	119	34%	17	34	50%
Marin	12	30	40%	14	27	52%
Tuolumne	18	40	45%	14	39	36%
Siskiyou	14	27	52%	12	20	60%
Nevada	-	-	-	11	16	69%

Data Source: Analysis of CDCR data, 2012-2016

* Data suppressed, No. receiving services (i.e. numerator) < 11

Additional counties with suppressed data points include Alpine, Amador, Calaveras, Colusa, Del Norte, Glenn, Inyo, Lassen, Mariposa, Modoc, Mono, Plumas, San Benito, Sierra, and Trinity.

Notes

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