

# 2014

## California Adolescent Sexual Health Needs Index

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## **Introduction**

Every youth deserves access to high-quality sexual and reproductive health information and support services. California has a long and successful history of providing such supports to adolescents.<sup>1</sup> Over the past 20 years, these efforts have been reflected in steadily declining birth rates among California females aged 15 – 19.<sup>2</sup> Despite these successes, the number of youth, families, and communities impacted by early childbearing remains high. Moreover, in California, racial, ethnic, and geographical disparities in adolescent sexual and reproductive health access and outcomes persist. In recognition of these variations across the State, CDPH/MCAH developed the California Adolescent Sexual Health Needs Index (CASHNI). This index will allow CDPH/MCAH and others to target available resources for primary and secondary adolescent pregnancy prevention programs to areas across the State with the greatest need for sexual and reproductive health services and supports.

## **A Focus on Social Determinants of Health**

Sexual health is defined by the World Health Organization as “a state of physical, emotional, mental and social well-being in relation to sexuality; it is not merely the absence of disease, dysfunction or infirmity.”<sup>3</sup> Supporting sexual health in adolescents requires acknowledgement that sexuality is a normative part of development and that adolescents are active agents in their sexual and reproductive choices. Not all adolescents benefit from the same choices, however. There are a number of social determinants of health that limit individual choices, including systemic racial and income inequalities and healthcare and educational access and quality differences.<sup>4</sup> These disparities and the related sexual and reproductive health outcomes can have profound impacts on adolescent’s health throughout life.

## **Small Area Geographical Targeting**

Geography is a key predictor of health disparities and outcomes. A common geography for health outcome data is the county.<sup>5</sup> However, there is substantial variation within California counties in the number and rate of adolescent births that is masked when looking at overall county rates.<sup>6</sup> To address this within county variation, the CASHNI was developed at the Medical Service Study Area (MSSA) level. MSSAs are clusters of census tracts that do not cross county boundaries and were developed to identify areas of unmet priority for health care coverage.<sup>7</sup> MSSAs are recognized by the U.S. Health Resources and Services Administration, Bureau of Health Professions' Office of Shortage Designation as rational service areas for purposes of designating Health Professional Shortage Areas, Medically Underserved Areas and Medically Underserved Populations. MSSAs are revised, as needed, with community input following each decadal census. Thus, MSSAs are a stable, locally meaningful sub-county geography that can be used for program targeting.



## Rationale and Description of Indicators

CASHNI indicators were chosen from available youth data in California<sup>8</sup> related to one of two broad CDPH/MCAH adolescent sexual health goals: (1) increase access to high-quality sexual health programs; and, (2) reduce the total number of adolescent births. In total, eight indicators were selected for the CASHNI; a summary of inclusion rationale is provided below (see technical notes for more information). All data is from 2014, the most recent year of birth data available.

- The average number of annual live births (NLB) to females aged 19 and below<sup>9</sup> is included as an indicator of expectant and parenting youth and the minimum adolescent population in need of sexual and reproductive health services in an MSSA. If efforts to reduce total adolescent births across the state are to be successful, they must be directed towards areas with the greatest number of births.
- The adolescent birth rate (ABR)<sup>10</sup> is the relative risk of adolescent births across geographies with different population sizes. The ABR is included in the calculation of overall community risk because adolescents in areas with higher ABRs have a greater likelihood of giving birth than those in areas with lower ABRs.
- The percentage of repeat births (PRB)<sup>11</sup> is the proportion of live births to adolescents who have multiple children. Repeat adolescent births are frequently correlated with short birth intervals, increasing the risk of negative health outcomes for mother and infant.<sup>12</sup> These youth may require additional resources to achieve access to reproductive health care; academic, and employment success; and in transitioning to a healthy and successful adult.
- The gonorrhea incidence rate (GIR)<sup>13</sup> is an indicator of adolescent sexual health outcomes beyond pregnancy prevention. We have included gonorrhea rather than Chlamydia because Gonorrhea is less likely to be asymptomatic in both males and females, requires more resources per case to treat and evinces greater racial and ethnicity disparities.<sup>14</sup>
- The percentage of youth living in areas of concentrated poverty (PYP)<sup>15</sup> is included to reflect the severely limited resources and greater needs among populations living in concentrated areas of low income. Consistent with the social determinants of health framework, we have included this area-based indicator rather than an individual measure of income to capture systemic influences.
- The percentage of youth living in racially isolated areas (RIS)<sup>16</sup> is included as a direct measure of racial inequality across MSSAs. Racially isolated areas of people of color tend to have fewer neighborhood resources, employment opportunities and lower quality schools all of which negatively affect health.<sup>17</sup>



- The percentage of 18-24 year olds without a high school diploma or equivalent (PWD)<sup>18</sup> is reflective of both community opportunities for positive future outcomes and populations of youth who are unlikely to receive sexual health information and services through mandated education.
- Rural and urban status (RUS)<sup>19</sup> addresses resources needed in an MSSA to deliver sexual and reproductive health programming. Rural healthcare disparities are well documented, and rural populations face less healthcare access at all levels (e.g., preventative, specialty, emergency).<sup>20</sup> In addition, rural youth face additional challenges in accessing reproductive health care due to increased confidentiality concerns in small close-knit communities, limited public transportation and the need to travel long distances to a pharmacy or family planning clinic.<sup>21</sup>

### **Calculation of CASHNI Scores**

The MSSA level CASHNI Score was calculated as follows:

- a. The ABR, PRB, GIR, PYP, RIS, PWD were standardized to the normal distribution and summed to form an index of overall community risk.<sup>22</sup>
- b. Overall community risk was ranked from 1 to 5 based on the distribution of sums and rankings were multiplied by 3 for rural MSSAs.<sup>23</sup>
- c. Resulting values (range 1 – 10) were multiplied by the age-adjusted NLB.<sup>24</sup>

### **What the CASHNI Score Means**

CASHNI scores range from 0 to 2715 across California's 542 MSSAs (see Table 1 for a list of CASHNI scores for each MSSA organized by county).<sup>25</sup> Higher scores indicate a greater community need for adolescent sexual and reproductive health services.

For a description of each MSSA see [California's Office of Statewide Health Planning and Development website: http://www.oshpd.ca.gov/hwdd/MSSA/index.html](http://www.oshpd.ca.gov/hwdd/MSSA/index.html).



## References and Technical Notes

1. CDPH (2016). *CDPH 2014 adolescent birth rate (ABR) press release frequently asked questions*. Retrieved from <http://www.cdph.ca.gov/data/statistics/Documents/2014ABRpressreleaseFAQ.pdf>
2. CDPH (2016). *California teen births: 2000 to 2014*. Retrieved from <http://www.cdph.ca.gov/data/statistics/Documents/2014ABRFinalPressReleaseSlides.pdf>
3. The World Health Organization. (2006). *Defining sexual health: Report of a technical consultation on sexual health*, 28-31 January 2002, Geneva. Retrieved from [http://www.who.int/reproductivehealth/publications/sexual\\_health/defining\\_sexual\\_health.pdf](http://www.who.int/reproductivehealth/publications/sexual_health/defining_sexual_health.pdf)
4. Centers for Disease Control and Prevention (October, 2010). *Establishing a holistic framework to reduce inequities in HIV, viral hepatitis, STDs, and tuberculosis in the United States*. Atlanta (GA): U.S. Department of Health and Human Services, Centers for Disease Control and Prevention. Retrieved from <http://www.cdc.gov/socialdeterminants/docs/SDH-White-Paper-2010.pdf>
5. University of Wisconsin Population Health Institute (2014). *County Health Rankings 2014*. Retrieved from [http://www.countyhealthrankings.org/sites/default/files/state/downloads/CHR2014\\_CA\\_v2.pdf](http://www.countyhealthrankings.org/sites/default/files/state/downloads/CHR2014_CA_v2.pdf)
6. Chabot MJ, Campa M, Barr L, Damesyn M. (2015). *Adolescent Birth Rates, Percentage of Repeat Births and Births in High Poverty Areas by Medical Service Study Area: California*, Aggregated 2010-2012. California Department of Public Health, Maternal, Child and Adolescent Health Division. Sacramento CA.
7. California's Office of Statewide Health Planning and Development, Medical Service Study Areas, retrieved from <http://www.oshpd.ca.gov/hwdd/MSSA/index.html>.
8. Selection of indicators was limited to available data. Although CDPH/MCAH understands adolescent sexual health is larger than pregnancy prevention (e.g., Sisson, 2012<sup>26</sup>), there is currently no statewide data on California adolescents reflective of the holistic sexual health model (e.g., relationship information, pregnancy intentions). Data available at the MSSA level is further limited.
9. The number of adolescent births in an MSSA was determined by geocoding mothers' addresses from the *Birth Statistical Master File* (California Department of Public Health, Center for Health Statistics and Informatics) using a 3-step process. 1) Raw address data was submitted to ERSI ArcGIS software for geocoding; 2) Uncoded addresses were matched to an MSSA by zip code (where there was 1:1 relation between a zip code and MSSA); 3) remaining uncoded addresses were manually cleaned (e.g., fixing misspelling, removing apartment numbers) and resubmitted for geocoding. This process resulted in 98.2% of the 93,351 adolescent births in 2012-2014 being successfully geocoded.
10. The adolescent birth rate (ABR) is the number of live births to females aged 15-19 divided by the female population aged 15-19, multiplied by 1,000. Aggregated birth data for years 2012-2014 were used to produce stable rates. MSSA population was calculated by applying the 2010 racial and ethnic distribution of the female population aged 15-19 from the census tract aggregated to MSSA to the California Department of Finance county population data for 2012-2014 using California, Department of Finance, Report P-3: State and County Population Projections by Race/Ethnicity, Detailed Age, and Gender, 2010-2060. Sacramento, California, December 2014 and U.S. Census Bureau; 2010 population by census tract; using American FactFinder; <http://factfinder2.census.gov>.
11. Percentage of repeat births (PRB) is the number of live births to females with a previous live birth divided by the total number of live births among females aged 15-19, multiplied by 100; excludes births where birth order is unknown or the number of previous live births is greater than 6 (less than 1% of births excluded).
12. Conde-Agudelo, A., Rosas-Bermúdez, A., & Kafury-Goeta, A.C. (2006). Birth spacing and risk of adverse perinatal outcomes: A meta-analysis. *JAMA*, 295(15):1809-1823.
13. The gonorrhea rate (GIR) is the number of reported gonorrhea cases to youth aged 15 – 19 divided by the youth population aged 15-19, multiplied by 100,000. 2012–2014 incidence and population data were aggregated to produce stable rates. Counts of Gonorrhea were geocoded and provided by the California Department of Public Health, STD Control Branch. Youth population was calculated by applying the 2010 adolescent population aged 15-19 from the census tract aggregated to MSSA to the California Department of Finance county population data for 2012-2014 using California, Department of Finance, Report P-3: State and County Population Projections by Race/Ethnicity, Detailed Age, and Gender, 2010-2060. Sacramento,



California, December 2014 and U.S. Census Bureau; 2010 population by census tract using American FactFinder; <http://factfinder2.census.gov>.

14. Guidance on selection of STI indicator for adolescent population provided by California Department of Public Health, STD Control Branch, July 2014.
15. Percentage of youth living in areas of concentrated poverty (PYP) is the number of children under 18 years of age living in a census tract where 20% or more of the total population is under the federal poverty level divided by the total number of children under 18 years of age in that census tract, aggregated across census tracts in an MSSA. Data from U.S. Census Bureau; 2014 American Community Survey 5-year estimates; using American FactFinder; <http://factfinder2.census.gov>.
16. Methodology to calculate racial isolation (RIS) adapted from The Furman Center for Real Estate and Urban Policy ([http://furmancenter.org/files/sotc/The\\_Changing\\_Racial\\_and\\_Ethnic\\_Makeup\\_of\\_New\\_York\\_City\\_Neighborhoods\\_11.pdf](http://furmancenter.org/files/sotc/The_Changing_Racial_and_Ethnic_Makeup_of_New_York_City_Neighborhoods_11.pdf)) where census tracts were defined as racially isolated if greater than 50% of the population was African American, Hispanic or American Indian/Native American and less than 20% of the population was White. Percentage of youth living in racially isolated areas of African Americans, Hispanics and American Indians/Native Americans is the number of children under 18 years of age living in racially isolated census tracts aggregated across census tracts in an MSSA divided by the total number of children under 18 years of age in that MSSA. Data from U.S. Census Bureau; 2014 American Community Survey 5-year estimates; using American FactFinder; <http://factfinder2.census.gov>.
17. Williams, D. R., & Collins, C. (2001). Racial residential segregation: A fundamental cause of racial disparities in health. *Public health reports*, 116(5), 404. Retrieved from <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1497358/pdf/12042604.pdf>
18. Percentage of individuals aged 18-24 in an MSSA that did not have a high school diploma or the equivalent (PWD) was revised in 2014 from the 2012 and 2013 CASHNI indicator high school dropout rate (HDO). The HDO included a countywide high school dropout rate. The MSSA-level indicator was more closely correlated with the other indicators included in the CAHSNI than the county-level data and thus was considered to be a more accurate reflection of need in the MSSA. Data from U.S. Census Bureau; 2014 American Community Survey 5-year estimates; using American FactFinder; <http://factfinder2.census.gov>.
19. Rural and Urban Status (RUS) is defined by the State of California's Office of Statewide Health Planning and Development using population size and density. Frontier MSSAs are included in the rural category. For more information on MSSA development and uses, see <http://www.oshpd.ca.gov/hwdd/MSSA/index.html>.
20. California State Office of Rural Health (2012). Rural Health Report 2012. Retrieved from: <http://www.dhcs.ca.gov/services/rural/Documents/CSRHAPresentationNov132012.pdf>
21. Garside, R., Ayres, R., Owen, M., Pearson, V., & Roizen, J. (2002). Anonymity and confidentiality: Rural teenagers' concerns when accessing sexual health services. *The Journal of Family Planning and Reproductive Health Care*, 28, 22-36.
22. Z-scores calculated for each indicator separately based on the mean and standard deviation across all 542 MSSAs. MSSAs with 0 births (n = 3) and/or 0 reported cases of gonorrhea (n = 108) were given a rate of 0. Z-scores greater than 3 were truncated to a value of 3 before summing the six indicators of community risk.
23. Summed z-scores were sorted by MSSA and assigned a value based on their relative distribution. MSSAs in the bottom 0 – 39% of the distribution were ranked as lowest risk with a value of 1; MSSAs 40 – 59% = 2; MSSAs 60-79% = 3; MSSAs 80-89% = 4; and, MSSAs >90% were ranked highest with a value of 5. Conceptualizing this is akin to saying that MSSAs with the greatest level of risk have 5 times greater need than those with the lowest level of risk. Similarly, by multiplying risk by 3 for rural (and frontier) MSSAs we are acknowledging that irrespective of total risk, the cost of providing services in rural MSSAs is at least three times as much as the cost of delivering services in urban MSSAs.
24. Childbearing among very young adolescents poses unique risks both to mother and child. To account for the greater needs of those younger relative to older adolescents, the NLB was weighted accordingly: multiplied by 3 for aged under 15; multiplied by 1.5 for aged 15-17; and multiplied by 0.5 for aged 18-19.
25. CASHNI scores less than 6 are noted with an asterisk to prevent constructive identification of births.
26. Sisson, G. (2012). Finding a way to offer something more: Reframing teen pregnancy prevention. *Sexuality Research and Social Policy*, 9, 57-69.





**Table 1. List of California MSSAs and 2014 California Adolescent Sexual Health Needs Index (CASHNI) Scores, sorted by CASHNI Score within County**

MSSA ID	CASHNI	MSSA ID	CASHNI	MSSA ID	CASHNI	MSSA ID	CASHNI	MSSA ID	CASHNI
<b>Alameda</b>		18b	116	<b>Imperial</b>		<b>Los Angeles</b>		78.2zz	202
2d	728	18e	65	49	1016	78.2fff	1407	78.2m	202
2h	311	18g	37	48	926	78.2ggg	1180	78.2ww	195
2n	214	18c	23	50	584	78.2ooo	1093	78.2bbbb	185
2c	185	17	21	47	215	77.1c	953	78.2v	181
2g	73	18a	21	46	*	78.2bbb	898	77.3	179
2f	41	18j	6	<b>Inyo</b>		78.2ss	888	78.2vv	167
2m	31	18h	*	53	68	78.2b	838	78.2qqq	153
2j	25	18i	*	55	6	78.2h	819	78.2qq	147
1.1	19	<b>Del Norte</b>		54	*	78.2mmm	819	78.2eee	146
1.2	16	19	276	<b>Kern</b>		78.2jjj	814	78.2www	143
2i	15	<b>El Dorado</b>		66b	1978	78.2s	798	78.2q	139
2l	15	23.3	47	61	1393	78.2ccc	675	78.2ff	128
2a	14	24	37	58.2	850	78.2d	603	77.1b	119
2e	11	23.2	23	58.1	740	78.2ll	593	78.2aaaa	104
2k	7	23.1	12	60	638	78.2l	576	78.2lll	102
2b	7	22	9	66a	612	78.2oo	543	78.2n	88
<b>Alpine</b>		<b>Fresno</b>		57.2	484	77.1a	527	78.2uu	76
3	8	30	1870	66c	467	78.2nnn	507	78.2iiii	69
<b>Amador</b>		32	1206	65	453	78.2c	506	78.2eeee	68
4	29	35d	1163	64	258	78.2ddd	495	78.2pp	59
5	7	35e	980	62	147	78.2p	494	78.2cccc	52
6	*	35c	869	66d	59	78.2uuu	490	76.1b	48
<b>Butte</b>		25	688	63	53	78.2ffff	451	78.2ii	41
10	477	31	537	59	41	78.2ppp	421	78.2a	37
9	81	29	414	57.1	15	78.2i	415	78.2z	33
8	52	35b	244	<b>Kings</b>		78.2iii	407	78.2xxx	32
7.1	39	35f	242	68	563	78.2r	392	77.5	32
11	12	28	218	69	297	78.2cc	349	78.2x	30
7.4	11	27	210	67	288	78.2e	331	78.2gggg	28
7.3	*	26	114	<b>Lake</b>		78.2g	319	78.2tt	28
7.2	*	35a	42	71.1	358	78.2k	304	78.2kkk	24
<b>Calaveras</b>		<b>Glenn</b>		70.2	90	78.2yyy	291	78.2rrr	23
12	31	36.1	108	70.1	78	78.2jjjj	250	78.2dddd	21
<b>Colusa</b>		37	71	71.2	30	78.2hhhh	246	78.2nn	18
15	65	36.2	50	71.3	*	78.2zzz	246	78.2dd	17
16.1	44	<b>Humboldt</b>		<b>Lassen</b>		78.2sss	238	78.2rr	17
16.3	25	39	217	72	63	78.2bb	226	78.2hh	16
16.2	17	38	120	75	12	78.2hhh	218	76.2	15
<b>Contra Costa</b>		38	42	74	*	77.2	213	78.2vvv	15
18d	412	40	21	73	*	78.2gg	207	78.2ee	14
18f	377	44	14			78.2kk	203	78.2o	14



MSSA ID	CASHNI	MSSA ID	CASHNI	MSSA ID	CASHNI	MSSA ID	CASHNI	MSSA ID	CASHNI
<b>Los Angeles</b>		96	611	116n	36	127	48	144.1	39
78.1	13	95	374	115.2a	25	131b	47	151a	35
76.1a	13	97.1	240	115.2d	24	129.1	35	147	25
78.2ttt	13	97.3	81	116m	23	131c	27	151d	23
78.2j	12	<b>Modoc</b>		116e	23	130	23	145.3	14
78.2t	10	98	13	115.2b	13	<b>Sacramento</b>		148	6
78.2mm	9	99	5	116j	11	139j	752	<b>San Diego</b>	
78.2xx	7	100	1	116o	10	139f	722	161j	739
78.2y	7	<b>Mono</b>		115.2c	10	139k	576	161c	529
77.4	6	103	13	116t	8	139c	241	161g	505
78.2jj	6	102	6	116u	7	139a	196	161d	492
78.2kkkk	6	<b>Monterey</b>		116d	*	139g	183	156e	465
78.2u	*	107	1563	116v	*	139h	96	161k	375
78.2f	*	109.2	1153	<b>Placer</b>		139d	64	156d	245
78.2w	*	105	362	121.1	33	139b	60	161h	214
78.2yy	*	109.1	326	117	23	136	47	156a	166
78.2aa	*	108	181	119	20	139l	35	161s	156
<b>Madera</b>		110	25	118	15	139m	20	160	126
80	2590	106	*	121.2	14	139e	18	161l	104
79.2	254	104	*	120	*	139i	15	159	93
79.1	25	<b>Napa</b>		<b>Plumas</b>		137	11	161i	86
<b>Marin</b>		112.1	68	125	7	138	8	161f	75
83b	68	111.2	38	124	6	<b>San Benito</b>		153.2	71
83a	6	112.2	33	123.1	6	140	244	161e	59
82	*	111.1	9	122	*	<b>San Bernardino</b>		158.1	47
81	*	112.3	7	123.2	*	151g	1278	161t	42
<b>Mariposa</b>		111.3	*	<b>Riverside</b>		145.2	1213	153.1	40
85	45	<b>Nevada</b>		128	950	151k	1005	161b	38
86	0	113	73	132	466	151h	988	161u	34
<b>Mendocino</b>		114	22	133.1	464	151f	761	161a	34
93.1	242	<b>Orange</b>		129.4	359	145.1a	685	156f	32
91	108	116b	946	135a	351	149	683	156b	31
92	54	116g	611	135d	331	151c	609	155	23
89	41	116l	507	134	326	145.1b	320	161m	18
87.1	11	116r	309	135b	312	144.2	317	152	17
93.2	11	116c	298	133.3	306	151b	188	156c	17
93.4	9	116q	290	126	288	151l	172	161v	16
93.5	6	116i	283	135c	234	144.3	145	161q	15
88	*	116h	152	135g	225	151i	125	154	14
87.2	*	116f	138	129.2	159	146	102	157	12
90	*	116s	124	135e	94	151e	76	161o	11
93.3	*	116a	109	131a	82	150	68	161p	10
<b>Merced</b>		116k	104	133.2	55	142	62	161n	8
97.2	825	116p	87	135f	50	143	59	161r	*
94	653	115.1	85	129.3	49	151j	40	158.2	*



MSSA ID	CASHNI	MSSA ID	CASHNI	MSSA ID	CASHNI	MSSA ID	CASHNI	MSSA ID	CASHNI
<b>San Francisco</b>		<b>Santa Barbara</b>		188.1	*	212.1	111	240b	22
162f	159	180.1	823	188.2	*	240a	12	240a	15
162c	49	179	516	187	*	<b>Sutter</b>		<b>Yolo</b>	
162a	44	180.2	218	<b>Sierra</b>		216	343	246.1	132
162d	22	181a	51	191	*	218	45	245	66
162g	*	178.2	21	<b>Siskiyou</b>		217	*	243	26
162h	*	177	20	195	90	<b>Tehama</b>		242	9
162e	*	181b	14	193	50	221	183	246.2	6
162b	*	178.1	13	197	26	222	107	244	*
<b>San Joaquin</b>		<b>Santa Clara</b>		200	18	219	41	<b>Yuba</b>	
169b	1093	183e	525	194	17	220	8	249	561
169a	500	182	375	198	14	<b>Trinity</b>		247	20
166	188	183d	178	199	*	225	12	248	7
169c	111	183j	166	196	*	224	9		
164.1	95	183h	160	<b>Solano</b>		223	6		
167	72	183b	50	204	260	226	*		
164.2	59	183l	41	202b	256	<b>Tulare</b>			
163	46	183o	31	202a	36	231	2715		
168	34	183k	29	201	32	230	1364		
165	*	183n	29	203.1	32	228.2	734		
<b>San Luis Obispo</b>		183g	27	203.2	6	233	615		
173	232	183c	18	<b>Sonoma</b>		228.1	310		
171	96	183i	17	210.1	185	227.1	207		
172	35	183m	9	209.1	42	227.2	173		
174	32	183f	*	205.1	13	232	33		
170	16	183a	*	208	12	229	*		
<b>San Mateo</b>		<b>Santa Cruz</b>		205.2	12	<b>Tuolumne</b>			
176b	362	184	362	206	10	234.2	24		
176f	65	185.5	149	210.2	9	236	21		
175.1	38	185.1	28	207	*	235	17		
176d	25	185.2	*	209.2	*	234.1	*		
176a	21	185.3	*	<b>Stanislaus</b>		<b>Ventura</b>			
176c	12	185.4	*	215c	672	241b	873		
175.3	8	<b>Shasta</b>		213	214	237	578		
176e	7	186	189	213	230	241a	331		
176g	6	189.3	159	212.3	225	241c	73		
175.2	*	189.2	115	212.2	153	238	30		
		190	50	215a	120	239	26		
		189.1	*	215b	115	240c	23		

\*CASHNI score between 1 and 5.



Figure 1. Map of 2014 CASHNI Scores Across California MSSAs

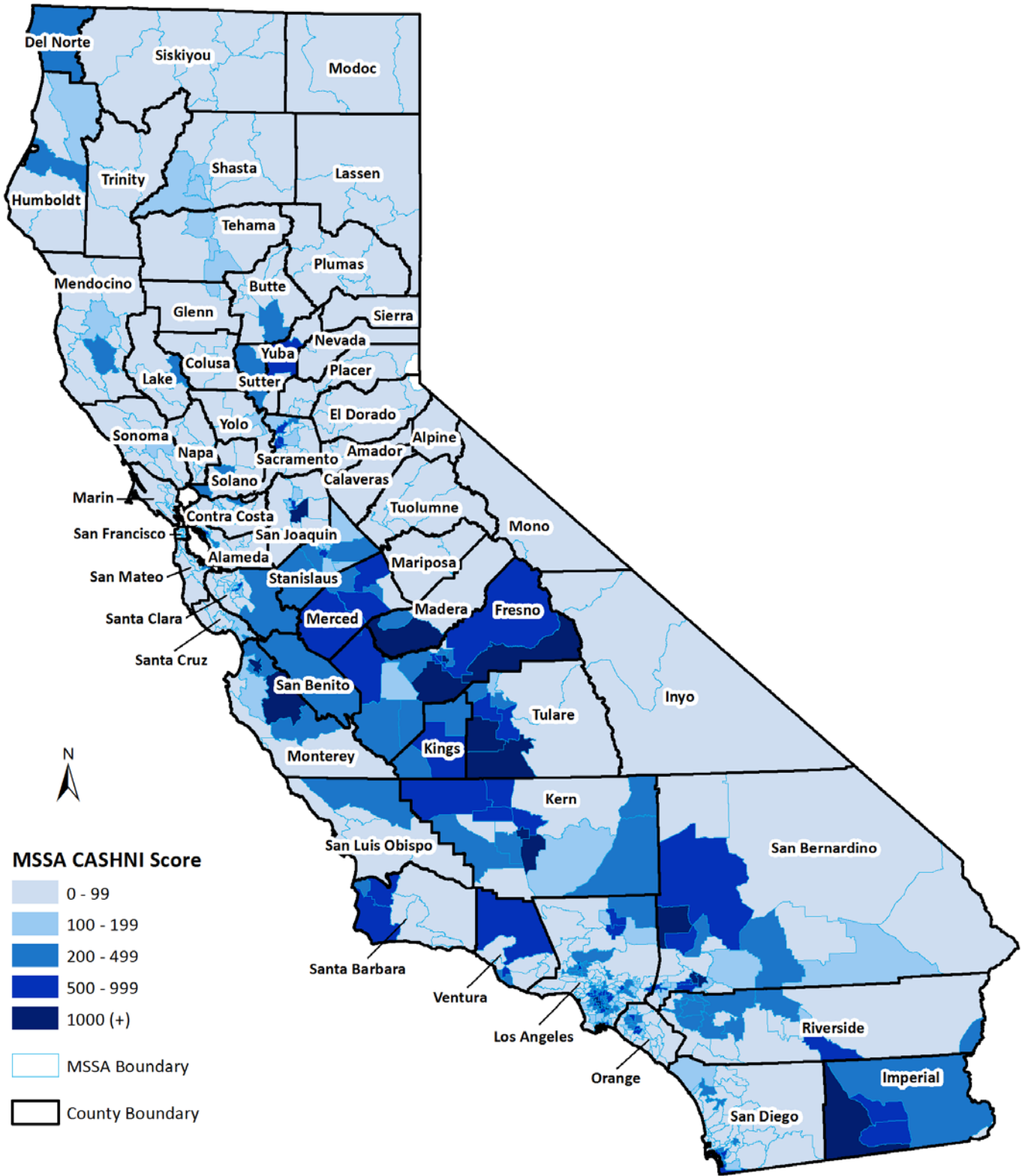


Figure 2. Map of 2014 CASHNI Scores Across California MSSAs – Bay Area Detail

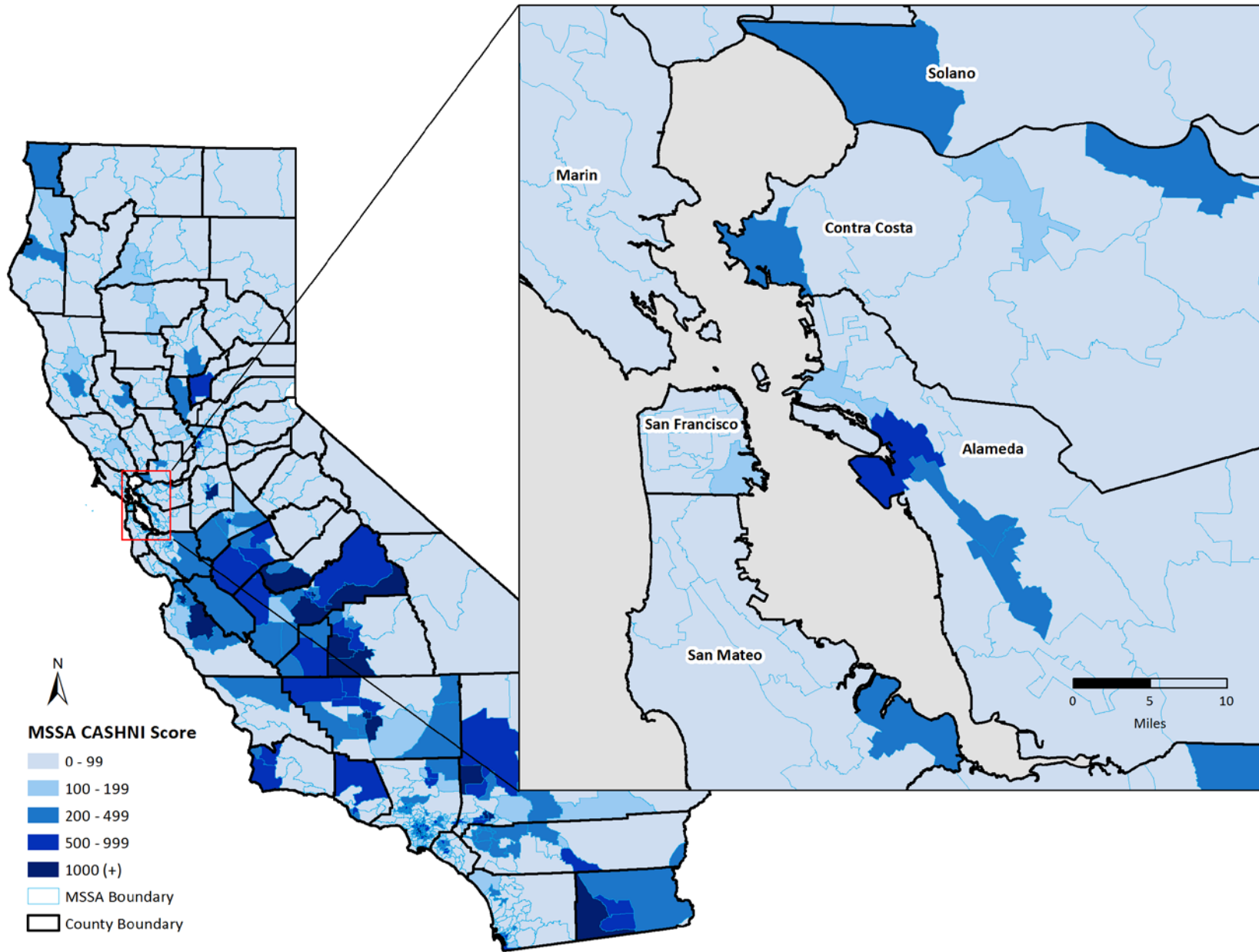


Figure 3. Map of 2014 CASHNI Scores Across California MSSAs – Los Angeles County Area Detail

