2019 NPCR CALIFORNIA SUCCESS STORY

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Describing the Burden of Cancer in California Rural and Frontier Areas

NATIONAL PROGRAM OF CANCER REGISTRIES SUCCESS STORY

SUMMARY: Disparities in cancer incidence, detection, treatment, and survival are known to exist in rural areas of California. Although California is home to highly populated cities like Los Angeles, San Francisco, San Diego, and Sacramento, there are also rural areas where the nearest health facility may be 20 miles away. As such, it is important to detect potential disparities in cancer incidence, detection, and outcomes among the very diverse California population. CalCARES has just completed the report, based on CCR data, "Rural-Urban Variations in Cancer Incidence, Detection and Survival in California." The report highlights cancer differences in urban (population > 75,000), rural (population density < 250 persons per square mile), and frontiers areas (population density < 11 persons per square mile) in California.

CHALLENGE: Age-adjusted rates, the most widely used measure in cancer surveillance, can only be calculated if detailed population counts by sex, age, and race/ethnicity are available. To accurately characterize the burden of cancer in rural areas, the recommended and most relevant geographic units in California are the Medical Service Study Areas (MSSA). However, population data with all necessary detailed information has only been available by county level, that is, where an entire county is considered urban or rural. Because of the heterogeneity of the population in California counties, cancer rates in rural and frontier areas are not calculated, and potential disparities have remained undetected.

SOLUTION: Detailed population data for California census tracts are obtained during the decennial Census. CalCARES analysts laboriously aggregated and coded the population for 8,057 census tracts into 541 MSSA in California. This work was the foundation for the report describing the variations in the burden of cancer in urban, rural, and frontier areas in California, an analysis that was overdue and much needed.

RESULTS: The frequency of cancer patients living in low impoverished neighborhoods was much higher in frontier areas, followed by rural and urban areas (54.5%, 36.1%, and 23.8% patients in low SES areas, respectively, in frontier, rural, and urban MSSA). These disparities were reflected in the proportion of patients diagnosed at late stage disease. For all screen-able cancer sites, differences between urban and rural were small. On the other hand, even with the small numbers analyzed, frontier populations had significantly higher proportion of late diagnoses, compared to urban and rural populations. These disparities are worrisome, particularly given the large number of hospitals that have closed since the early 2000s in the Central Valley and in more isolated Northern areas in California.

SUSTAINING SUCCESS: With the methodology now developed, CalCARES will continue to monitor and report on cancer incidence, detection and survival among rural and frontier populations in California. Outreach efforts may target these lower population density areas to mitigate these disparities.

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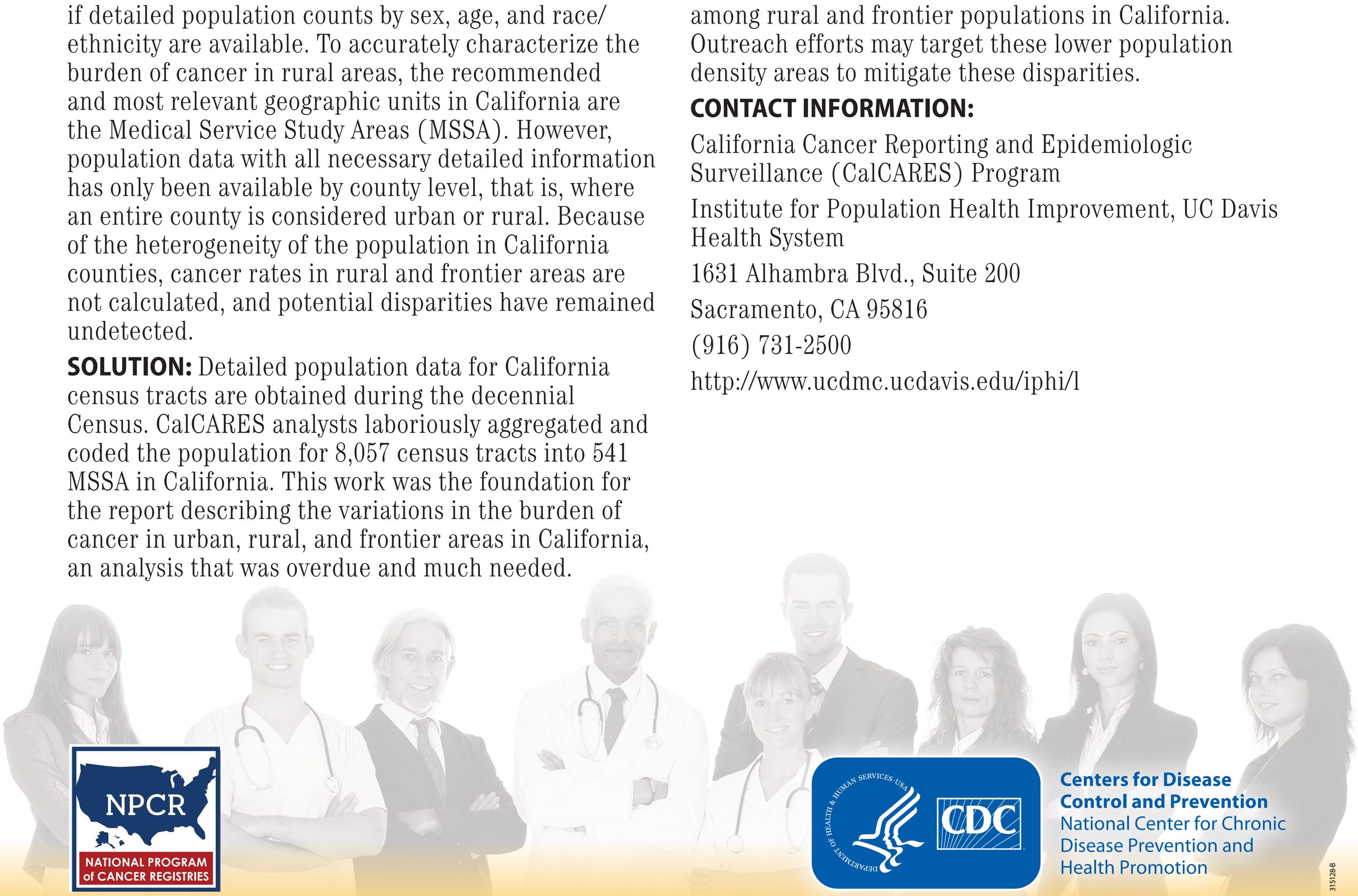

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