

# Physician Participation in Medi-Cal, 2001

*Prepared by  
University of California, San Francisco*

May 2003

# Report

**The Medi-Cal Policy Institute, established in 1997 by the California HealthCare Foundation, is an independent source of information on the Medi-Cal and Healthy Families programs. The Institute seeks to facilitate and enhance the development of effective policy solutions guided by the interests of the programs' consumers. The Institute conducts and commissions research, distributes information about the programs and the people they serve, highlights the programs' successes, and identifies the challenges ahead. It collaborates with a broad spectrum of policymakers, researchers, providers, consumer representatives, and other stakeholders who are working to create higher-quality, more efficient Medi-Cal and Healthy Families programs.**

# **Physician Participation in Medi-Cal, 2001**

May 2003

Andrew B. Bindman, M.D.

Jean Yoon, M.H.S.

Kevin Grumbach, M.D.

*University of California, San Francisco*

and

Lucy Streett, M.P.H.

*Medi-Cal Policy Institute*

# Acknowledgments

This report was made possible through the support of the Medi-Cal Policy Institute and the National Center for Health Workforce Analysis, Bureau of Health Professions, Health Resources and Services Administration.

The authors are grateful for the significant contributions made to this report by the survey research team including Dennis Keane, Alexandra McConnell-Hill, David Brody, Barbara Westree, Elliot Ross, Cynthia Salinas, Rosa Hippler, Matt Dickow, Christopher Quale, and Elizabeth Mertz.

Copyright © 2003 Medi-Cal Policy Institute  
ISBN 1-932064-34-6

Medi-Cal Policy Institute  
476 Ninth Street  
Oakland, CA 94607  
tel: (510) 286-8976  
fax: (510) 238-1382  
[www.medi-cal.org](http://www.medi-cal.org)

*A project of the*



Additional copies of this and other publications can be obtained by calling the Medi-Cal Policy Institute at (510) 286-8976 or by visiting the Web site ([www.medi-cal.org](http://www.medi-cal.org)).

# Contents

<b>Executive Summary</b>	<b>1</b>
<b>I. Background</b>	<b>7</b>
<b>II. Survey Methods</b>	<b>9</b>
<b>III. Trends among Urban Physicians, 1996–2001</b>	<b>13</b>
Participation in Medi-Cal	13
Physician Characteristics	21
Perceptions of Medi-Cal	25
<b>IV. Comparison of Urban and Rural Physicians, 2001</b>	<b>29</b>
Participation in Medi-Cal	29
Physician Characteristics	34
Perceptions of Medi-Cal	36
<b>V. Discussion</b>	<b>39</b>
<b>Appendix</b>	<b>45</b>
<b>Notes</b>	<b>49</b>

# Executive Summary

A recent report from the Medi-Cal Policy Institute found that the number of primary care physicians per capita for Medi-Cal beneficiaries in California's urban areas in 1998 was well below federal workforce standards. However, this study was limited to urban areas, was used to examine a relatively short time period (1996–1998) after the expansion of Medi-Cal managed care, and was conducted prior to a Medi-Cal physician fee increase in August 2000 that was implemented with the aim of increasing physician participation in the program.

The purpose of this report is to expand what is known about physicians' participation in the Medi-Cal program by describing the results of a survey conducted in 2001 of a random sample of primary care and specialist physicians practicing in urban and rural areas in California. The results of this survey are compared with similar surveys of primary care physicians in 1996 and specialist physicians in 1998.

## Key Findings

*Nearly half of all physicians in California's urban counties are not willing to take Medi-Cal patients.*

- In 2001, 56 percent of primary care physicians, 55 percent of medical specialists, and 52 percent of surgical specialists in urban counties said they had Medi-Cal patients in their practice.
- Fewer physicians were willing to accept *new* Medi-Cal patients into their practices. Only 55 percent of primary care physicians, 48 percent of medical specialists, and 43 percent of surgical specialists who were accepting any new patients said that they were open to new Medi-Cal patients.

- Among the 11 physician specialties included in the survey, the percentage of physicians with Medi-Cal patients in their practice in 2001 ranged from 28 percent for orthopedic surgeons to 71 percent for general surgeons.

*Despite efforts in the late 1990s to increase physician participation in the Medi-Cal program, including the expansion of Medi-Cal managed care and an increase in physician fees, there was no measurable increase in physicians' participation in the program between 1996 and 2001.*

- Between 1996 and 2001, there was a small but not statistically significant decrease in the overall percentage of primary care physicians with any Medi-Cal patients in their practice in California's urban counties.
- There was, however, a significant decline in participation among surgical specialists between 1998 and 2001. Among those with existing Medi-Cal patients in their practice, the percentage who reported that they were unwilling to accept new Medi-Cal patients nearly doubled over time from 20 percent in 1998 to 39 percent in 2001.

*The supply of physicians available to Medi-Cal patients is significantly less than that available to the general population.*

- In 2001, 25 percent of all primary care physicians provided approximately 80 percent of the primary care visits to Medi-Cal patients.
- On average, the number of available primary care physicians per capita for Medi-Cal beneficiaries in 2001 was one-third less than it was for the general population. The number of medical specialists available to Medi-Cal beneficiaries was more than one-half less than it was for the general population, and the number of surgical specialists was two-thirds less.
- Overall, the ratio of primary care physicians available to Medi-Cal patients in urban counties in 2001 (46 per 100,000) was well below the workforce standards established by the Health Resources Services Administration (which recommends 60 to 80 primary care physicians per 100,000 population).
- Physician participation rates in Medi-Cal were substantially lower than for the other major public insurance program, Medicare. With the exception of pediatricians, between 74 percent and 97 percent of the physicians in the surveyed specialties reported that they had Medicare patients in their practice, compared to a range of 28 percent to 71 percent for Medi-Cal.
- The level of physician participation in California's Medi-program appears to be significantly lower than the rate of participation in other states' Medicaid programs.

*Dissatisfaction with some aspects of Medi-Cal managed care appears to be growing over time.*

- In 1996, primary care physicians expressed some optimism that managed care would improve the Medi-Cal program, but by 2001 they held predominantly negative views of Medi-Cal managed care. There was a sharp decrease over time in the percentage of physicians who said that managed care is increasing reimbursement for Medi-Cal patients (from 64 percent in 1996 to 28 percent in 2001) and in the percentage who said managed care made it easier to obtain tests and specialty consults (61 percent in 1996 compared to 37 percent in 2001).
- There was a decrease over time in the percentage of specialist physicians who said that the number of Medi-Cal patients in their practice was increasing as a result of managed care.

*Few physicians were aware of the August 2000 increase in Medi-Cal physician fees.*

- Fewer than one in seven physicians in 2001 indicated that they believed that Medi-Cal fees had increased in the past 18 months.
- Even among physicians who had Medi-Cal patients in their practice, 76 percent of primary care physicians, 92 percent of medical specialists, and 87 percent of surgical specialists reported either that they did not know whether Medi-Cal rates had changed or that rates had not increased in the prior 18 months.
- Physicians with a higher concentration of Medi-Cal patients were more likely to be aware of the increase, but even among those whose practice concentrations were more than 20 percent Medi-Cal patients, less than a third reported that Medi-Cal payment rates had increased.

*Physicians practicing in rural areas of California were more likely than urban physicians to report participation in Medi-Cal.*

- In remote rural areas, 79 percent of primary care physicians had Medi-Cal patients in their practice, compared with 67 percent of primary care physicians in less remote rural regions and 56 percent of primary care physicians in urban communities.
- In remote rural areas, 77 percent of medical specialists had Medi-Cal patients in their practice, compared with 63 percent of medical specialists in less remote rural regions and 50 percent of medical specialists in urban communities.
- In remote rural areas, 85 percent of surgical specialists had Medi-Cal patients in their practice, compared with 83 percent of surgical specialists in less remote rural regions and 52 percent of surgical specialists in urban communities.



- Despite being more likely to have Medi-Cal patients in their practices, rural physicians were not more likely than their urban counterparts to accept *new* Medi-Cal patients. An exception is rural surgical specialists, 76 percent of whom reported that they were accepting new Medi-Cal patients in 2001, compared to 42 percent of urban surgical specialists.
- Physicians' opinions about Medi-Cal were similarly negative in rural areas as they were in urban areas.
- Although the supply of physicians per capita for the entire population was lower in rural areas than urban areas, the average number of physicians per capita available to Medi-Cal beneficiaries was as good in rural communities as it was in urban areas.

## Policy Implications

The supply of primary care and specialist physicians caring for Medi-Cal patients in urban and rural communities in California is below federal workforce standards. Efforts to address this problem, including the expansion of managed care and incremental increases in physician fees, do not appear to have resulted in an increase in physicians' willingness to participate in the Medi-Cal program. Over the past several years, physicians have expressed persistently negative opinions about Medi-Cal payment rates and increasingly negative opinions about Medi-Cal managed care—two factors which may contribute to their low level of participation. However, since policies to increase physician payment rates and expand managed care were not introduced in an experimental fashion, we cannot say with certainty whether physician participation rates might have declined even more significantly in the absence of these policy changes.

It is important to note that an examination of physician participation rates at the statewide level does not paint a complete picture. As this study indicates, physicians in rural areas are more likely than their urban counterparts to accept Medi-Cal patients. This higher rate of participation may hold lessons for overall policies to address physician participation in the Medi-Cal program. The structure of physician practice in rural communities, with a more central role for community health centers, may explain in part why rural physicians are more likely to care for Medi-Cal patients. Based on anecdotal evidence, participation also varies by county and city (although the sample size for this survey was not large enough to examine differences at that level). Further, physician participation is not distributed evenly across different specialty types, perhaps indicating the need for a closer examination of Medi-Cal payment levels for certain specialty services.

The findings from this study are consistent with a survey of Medi-Cal beneficiaries conducted in 1999, which found that 56 percent of beneficiaries reported difficulty finding doctors who were willing to treat Medi-Cal patients.<sup>1</sup> Together, these findings raise concerns about the ability of some Medi-Cal beneficiaries to access health care services. In 2000, California provided

Medi-Cal coverage to 14 percent of its nonelderly population, which is more than the national average of 10 percent.<sup>2</sup> However, the value of that coverage may be diminished if beneficiaries are not able to find physicians who are willing to treat them.

Policymakers in California face the following three broad options for addressing low levels of physician participation in the Medi-Cal program:

1. *Increase—or, at a minimum, maintain—the participation of physicians in Medi-Cal by increasing payment rates and/or reducing the cost of doing business with Medi-Cal.* California would need to make a substantial investment in physician fees just to raise them to a level that is comparable to the average of other states' Medicaid physician payment rates, let alone to the level of California commercial rates or the Medicare fee schedule. Nevertheless, there are potentially several options to cover the cost of raising physician payment levels, each with its own drawbacks. One option is to increase general fund revenues dedicated to the Medi-Cal program. A second option is to reallocate funds that are already earmarked for Medi-Cal. Compared to other states, California has traditionally chosen to offer relatively generous Medi-Cal eligibility guidelines and benefits in lieu of bolstering physician payment rates. A third option may be to spread the burden of low Medi-Cal physician payment rates across all physicians by supplementing Medi-Cal payments with revenues from a broad-based tax on physician services, similar to provider taxes used in other states to fund uncompensated care.

The state could also consider approaches to make Medi-Cal more “physician friendly” in its administration. Such approaches would not necessarily have adverse budgetary impacts. Examples might include simplifying claims submission and processing procedures, reducing payment delays, and allowing presumptive eligibility determinations at provider sites. However, there is no evidence to suggest that modest changes of these types would lead to meaningfully greater physician participation in Medi-Cal.

2. *Expand the pool of providers by creating new opportunities for nonphysician clinicians to serve Medi-Cal beneficiaries.* Rather than try to increase physician participation, an alternative approach is to expand the role of nonphysician clinicians. This approach could preserve resources for other Medi-Cal policy goals and represent a more realistic assessment of Medi-Cal's status in the current policy environment. It is possible that many more nonphysician clinicians capable of delivering services traditionally provided by physicians would be willing to participate in Medi-Cal at current physician payment rates, if Medi-Cal allowed more opportunities for these nonphysician clinicians to function as autonomous providers and to bill Medi-Cal directly for services. Even though Medi-Cal regulations already provide some opportunities for

nonphysician clinicians to bill Medi-Cal directly, many regulatory barriers (such as limitations on pharmaceutical prescribing) restrict nonphysician clinician participation in the program as autonomous providers. Changes in state regulations regarding nonphysician clinicians' scope of practice tailored to participation in Medi-Cal might enhance Medi-Cal beneficiaries' access to care. However, the potential benefits for access to care of reducing such regulatory barriers must be weighed against concerns about whether these changes would adversely affect the quality of care for Medi-Cal beneficiaries.

- 3. Abandon the strategy of a stand-alone insurance program for the poor and replace Medi-Cal with a "mainstream" health insurance plan that covers Californians of all income levels.* The growing sense of a health care system crisis across the health insurance spectrum in California may provide an opportunity for fundamental restructuring of Medi-Cal and other health insurance plans, such as through implementation of a universal state health insurance plan. However, this approach would involve far-reaching changes not only in Medi-Cal, but also in the state's entire health care system, with many hurdles to enactment.

The state's current budgetary constraints will force policymakers to confront the priorities of the Medi-Cal program, to question the policy objectives for physician participation in Medi-Cal, and to consider more far-reaching reforms in Medi-Cal and the state's health care system.

# I. Background

Medicaid originated in the mid-1960s as a jointly financed federal and state health insurance program for low-income (predominantly women and children), disabled, and elderly Americans. Medi-Cal, California's Medicaid program, is the largest state Medicaid program in the country. In 2001, Medi-Cal provided health insurance to more than five million Californians at an estimated cost of more than \$24 billion.<sup>3</sup>

Enrollment in the Medi-Cal program does not necessarily ensure access to health care services. A survey of Medi-Cal beneficiaries conducted in 1999 found that 56 percent of beneficiaries reported difficulty in finding doctors who were willing to treat Medi-Cal patients. Further, 94 percent of beneficiaries stated that getting more doctors in the program was important.<sup>4</sup>

Until recently, however, there was little quantitative evidence available about the level of physician participation in Medi-Cal. In February 2002, the Medi-Cal Policy Institute issued a report on the findings from surveys of California physicians conducted in 1996 and 1998 by the University of California, San Francisco (UCSF). This report found that in 1998, only 55 percent of primary care physicians and 57 percent of specialists in California's urban counties had Medi-Cal patients in their practice.<sup>5</sup> UCSF investigators also found that the number of physicians per capita available to Medi-Cal beneficiaries was significantly less than it was for the general population and that the ratio of primary care physicians available to Medi-Cal patients was well below the workforce standards established by the Health Resources and Services Administration.

California has implemented several strategies to improve Medi-Cal beneficiaries' access to physicians. One strategy has been to deliver Medi-Cal services through managed care. During the 1990s, California, like many other states, enrolled many of its Medi-Cal beneficiaries in managed care plans with the goal of improving patients' access to care while controlling costs. As of 2001, 51.4 percent of California's Medi-Cal beneficiaries, predominantly women and

children who are eligible through a link with the Temporary Assistance for Needy Families (TANF) program, were enrolled in a managed care plan.<sup>6</sup>

A second approach to increasing physician participation has been to increase Medi-Cal reimbursement rates. California's Medi-Cal reimbursement rates have historically been among the lowest in the nation. In August 2000, California increased Medi-Cal physician fees from an average of 57.7 percent to 65.2 percent of the average Medicare payment in California.<sup>7</sup> These increases were not distributed across the board; rather, they were targeted at services where Medi-Cal fees lagged the furthest behind Medicare fee levels. Even with this increase, however, California's Medi-Cal fees ranked 42nd among states when adjusted for cost of living differences. Around the country, low Medicaid payment rates have been associated with low Medicaid participation of physicians, but some studies have also found that increasing rates has only a marginal effect on improving participation.<sup>8,9</sup>

Relatively little is known about whether recent changes in California's Medi-Cal program have been associated with changes in physicians' participation rates. In previous surveys, UCSF investigators found that an increase in managed care enrollment from 23.7 percent to 43.3 percent of Medi-Cal beneficiaries between 1996 and 1998 was not associated with an increase in primary care physicians' participation in the program.<sup>10</sup> In a separate cross-sectional study, specialist physicians reported that they were less likely to accept Medi-Cal managed care patients than Medi-Cal fee-for-service patients, suggesting that access to specialists in the Medi-Cal program might erode over time.<sup>11</sup> However, these results were limited to urban areas and covered a relatively short time period. The study also preceded the August 2000 increase in Medi-Cal physician payments.

The purpose of this report is to expand what is known about physicians' participation in the Medi-Cal program by describing the results of a survey conducted in 2001 of primary care and specialist physicians in California. This survey was expanded to include physicians practicing in rural areas and a new cross-sectional sample of urban physicians. The results of this survey are used to examine changes in primary care physicians' participation in Medi-Cal over a five-year period between 1996 and 2001, and specialist physicians' participation between 1998 and 2001. In addition, the 2001 sample is used to compare California's urban and rural physicians' participation in the Medi-Cal program. Studies from other states have suggested that a greater percentage of rural physicians than urban physicians have Medicaid patients in their practice, and rural physicians derive a greater share of their income from Medicaid than nonrural physicians.<sup>12,13</sup>

## II. Survey Methods

The data presented in this report come from a 1996 survey of urban California primary care physicians, a 1998 survey of urban California specialist physicians, and a 2001 survey of California primary care and specialist physicians practicing in urban and rural areas in the state. Investigators from the University of California, San Francisco conducted all three surveys.

### **Urban Sample**

In fall 2001, investigators at UCSF mailed self-administered questionnaires to primary care and specialist physicians practicing in the 13 largest urban counties in California (Alameda, Contra Costa, Fresno, Los Angeles, Orange, Riverside, San Bernardino, San Diego, Sacramento, San Francisco, San Mateo, Santa Clara, and Solano). The study counties contained 78 percent of California's practicing physicians, 78 percent of the state's population, and 77 percent of the state's Medicaid population.<sup>14,15</sup> The physicians were identified from the American Medical Association's (AMA) Physician Masterfile. The Masterfile contains updated information on all U.S. allopathic physicians and many osteopathic physicians, including those who are not AMA members.

To be eligible for the survey, physicians had to be listed as providing direct patient care, and they could not be in training or employed by the federal government. Primary care physicians were sampled who listed their primary specialty as family practice, general practice, general internal medicine, general pediatrics, or obstetrics and gynecology. Specialists were sampled if they listed cardiology, dermatology, endocrinology, gastroenterology, general surgery, neurology, ophthalmology, orthopedics, or otolaryngology as their specialty. These physicians were chosen to provide a broad spectrum (procedure and nonprocedure oriented) of both surgical

and medical office-based specialties. Physicians were selected using a probability sample stratified by county, specialty, and physician race/ethnicity with an oversampling of non-White physicians. Completed questionnaires were obtained from 1,364 of the 2,240 eligible physicians (61 percent). There were no significant differences in response rates according to county and physician sex. Response rates were significantly higher ( $p < 0.05$ ) for pediatricians (67 percent), dermatologists (66 percent), endocrinologists (64 percent), White physicians (68 percent), and those who were board certified (62 percent).

Primary care physicians surveyed in 1996 were drawn using a probability sample stratified by county and by physician race/ethnicity with an oversampling of non-White physicians from the same 13 urban counties in California and using the same criteria as were used in the 2001 survey. Completed responses were obtained from 947 of the 1,336 eligible primary care physicians (71 percent). Specialist physicians surveyed in 1998 were similarly selected using a probability sample stratified by county and by physician race/ethnicity with an oversampling of non-White physicians. The 1998 sample of specialists included all specialties selected for the 2001 specialist sample with the exception of dermatology and otolaryngology. Completed questionnaires were obtained from 978 of the 1,492 eligible specialist physicians (66 percent). There were no significant differences in the age, sex, race, or specialty between respondents and nonrespondents to the 1998 questionnaire.

## **Rural Sample**

Physicians in the rural sample were drawn from all 58 counties in California and identified from the American Medical Association's Physician Masterfile. Two different categories of rural location were used in the study. "Remote rural" regions consisted of those counties in California classified by the Department of Agriculture as having a very rural score (5–8) on the rural/urban continuum code.<sup>16</sup> The rural/urban scale is based on whether or not an area is a part of a metropolitan area as well as on the population density in nonmetropolitan areas. All physicians with a practice address in these counties were considered to practice in remote rural communities. "Nonremote rural" regions consisted of areas in counties that have lower rural scores (0–4) on the rural/urban continuum. Rural areas in these counties were identified using Medical Service Study Area (MSSA) rural/urban classifications from the California Office of Statewide Health Planning and Development (OSHPD).<sup>17</sup> MSSAs are used by California government agencies to evaluate health care workforce shortage areas. They are defined by contiguous census blocks that can be linked to contiguous zip code clusters that correspond to recognizable subcounty neighborhoods. OSHPD defines rural MSSAs as those with population densities of less than 250 residents per square mile and containing no city of 50,000 or more residents. Physician office addresses were geographically coded to MSSAs to identify those physicians in rural MSSAs in nonremote counties. Physicians were sampled from the same specialties as used in the 2001 urban survey.

Completed questionnaires were obtained from 398 of the 632 eligible rural physicians (63 percent). There were no significant differences in the age, sex, race, or specialty between rural respondents and rural nonrespondents to the questionnaire.

## **Physician Questionnaire**

With the exception of a few items, physicians were asked the same questions in the 1996, 1998, and 2001 surveys. Questionnaire items included physician demographics, practice setting, and characteristics of patients in practice. Physicians were asked whether they were taking any new patients and, if so, whether they were accepting any new Medi-Cal patients with managed care or fee-for-service insurance. Physicians were also asked about recent Medi-Cal policy changes and a series of questions about their perceptions of Medi-Cal beneficiaries and the Medi-Cal managed care program. A copy of the 2001 survey instrument is included in the appendix.

## **Survey Data Analysis**

Physician participation in the Medi-Cal program was measured in three ways: (1) by whether physicians had any Medi-Cal patients in their practice; (2) by the percentage of Medi-Cal patients in physicians' practices (practice concentration); and (3) by whether physicians who were accepting new patients were accepting new Medi-Cal patients in their practice. Physicians were further characterized by whether they participated in fee-for-service Medi-Cal only, Medi-Cal managed care only, or both.

We operationalized the supply of physicians available to Medi-Cal patients as a function of the number of physicians caring for Medi-Cal patients and the respective percentage of such patients in their practices. For example, a physician who reported that 20 percent of his/her patients were Medi-Cal beneficiaries would constitute 0.2 Medi-Cal physician equivalents. We divided our calculated supply of physician equivalents by 100,000 Medi-Cal beneficiaries.

In the analysis, results from the urban sample were weighted to be generalizable to the overall population of physicians in the sampled specialties in the 13 study counties. These results were weighted by the inverse of the sampling fraction and the participation rate to account for oversampling of non-White physicians and differences in response rates among sampling strata. The sample size was not sufficient to stratify results by county. Results from the rural sample were weighted to be generalizable to the overall population of physicians practicing in rural areas in the state. These results were weighted by the inverse of the sampling fraction and the participation rate to account for differences in response rates among sampling strata. Weights were truncated at the 95th percentile.

For many analyses, physicians were grouped according to specialty: primary care physicians (family practice, general internal medicine, pediatrics, and obstetrics-gynecology), medical



specialists (cardiology, endocrinology, gastroenterology, neurology, and dermatology), and surgical specialists (ophthalmology, orthopedics, otolaryngology, and surgery).

Time trend analysis using the 2001 survey excluded the two physician specialties not included in the 1998 survey (dermatology and otolaryngology).

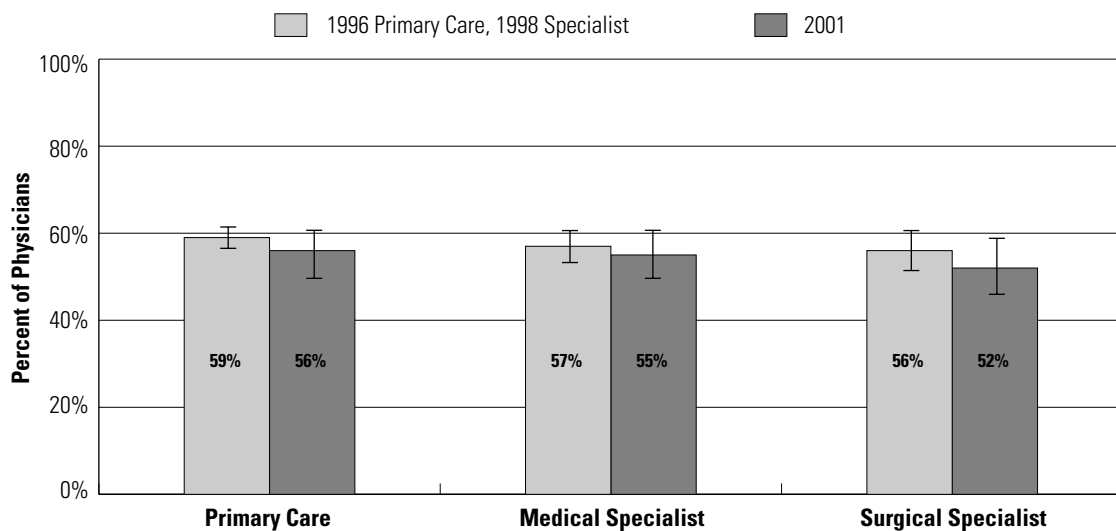
Some of the changes observed over time were not statistically significant. In order to indicate those instances, many of the time trend analysis results are displayed as weighted percentages with error bars indicating the 95 percent confidence intervals. In cases where those error bars overlap, the changes over time were not statistically significant.

### III. Trends among Urban Physicians, 1996–2001

#### Participation in Medi-Cal

In 2001, only slightly more than half of the physicians practicing in California’s large urban counties reported that they had Medi-Cal patients in their practice. This level of participation indicates a small but not statistically significant decrease (indicated by the overlapping 95 percent confidence interval bars) from the percentage of physicians who participated in 1996 and 1998 (Figure 1).

**Figure 1. Urban Physicians with Any Medi-Cal Patients in Practice**

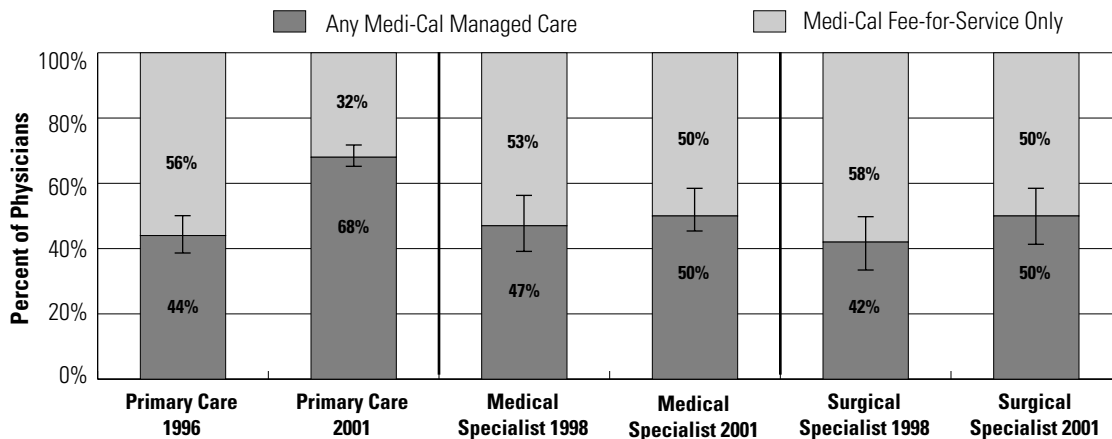


Source: UCSF Surveys of California Physicians: 1996, 1998, and 2001

Note: — represents 95 percent confidence interval.

Among primary care physicians, there was a significant increase over time in the percentage that reported that their participation in Medi-Cal included patients in managed care (Figure 2). In 1996, less than half (44 percent) of the urban primary care physicians who participated in Medi-Cal reported that they had Medi-Cal managed care patients in their practice. By 2001, involvement in Medi-Cal managed care was reported by more than two-thirds (68 percent) of Medi-Cal participating primary care physicians. There was a much less dramatic shift toward Medi-Cal managed care among specialists. In 2001, roughly half of medical and surgical specialists who participated in Medi-Cal had Medi-Cal managed care patients in their practice, which represents a small but not statistically significant increase from 1998.

**Figure 2. Medi-Cal Participating Urban Physicians with Medi-Cal Managed Care Patients in Practice**

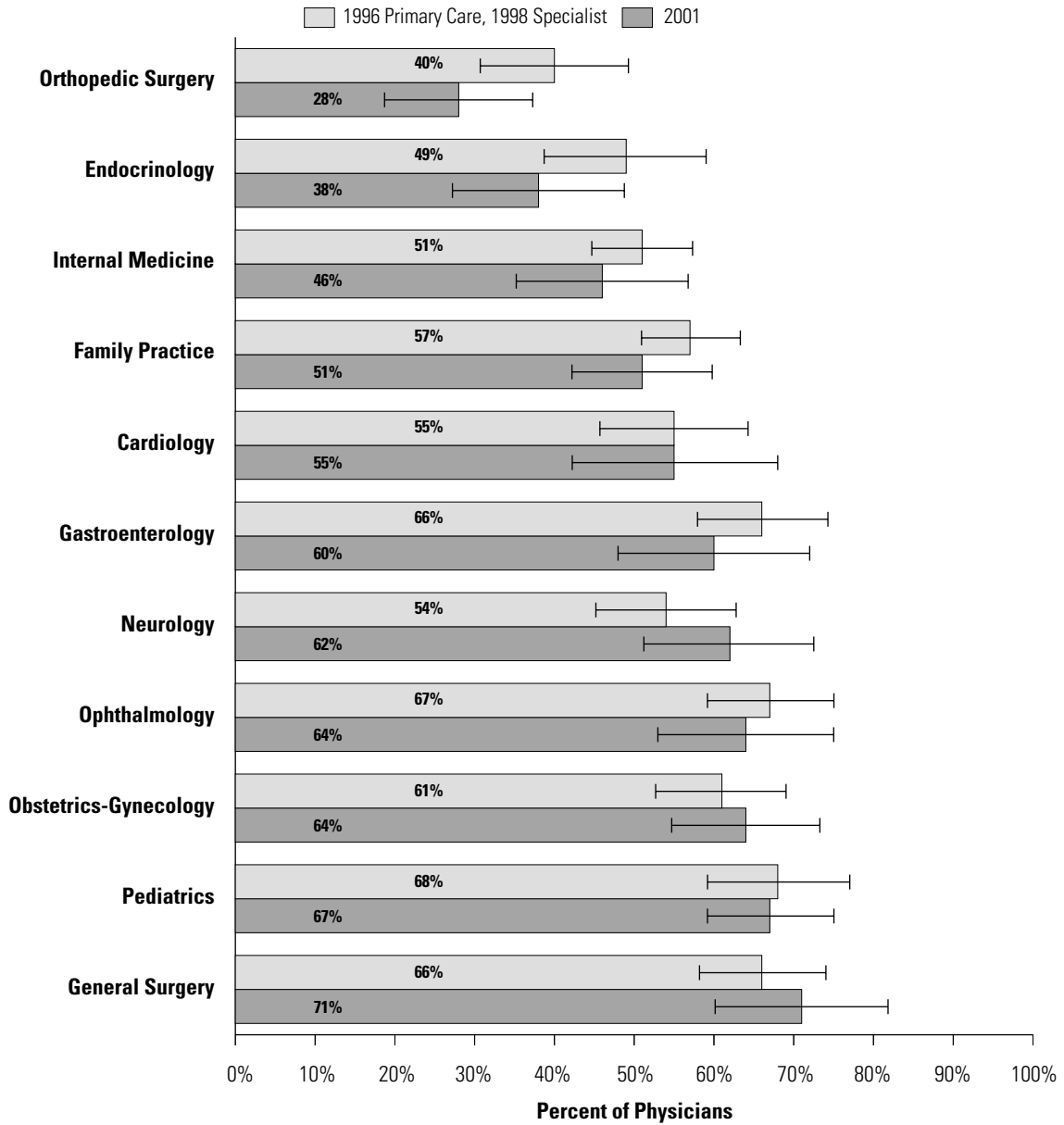


Source: UCSF Surveys of California Physicians: 1996, 1998, and 2001  
 Note: — represents 95 percent confidence interval.

Among the 11 physician specialties included in the survey, the percentage of physicians with Medi-Cal patients in their practice in 2001 ranged from 28 percent for orthopedic surgeons to 71 percent for general surgeons (Figure 3). In 7 of the 11 specialties there were fewer physicians participating in Medi-Cal in 2001 than there had been in 1998. The largest decreases were seen among orthopedic surgeons and endocrinologists, the two specialties that had the lowest participation rate in 1998. However, the relatively small number of physicians surveyed in each individual specialty limits the statistical significance of differences in participation between 1998 and 2001.

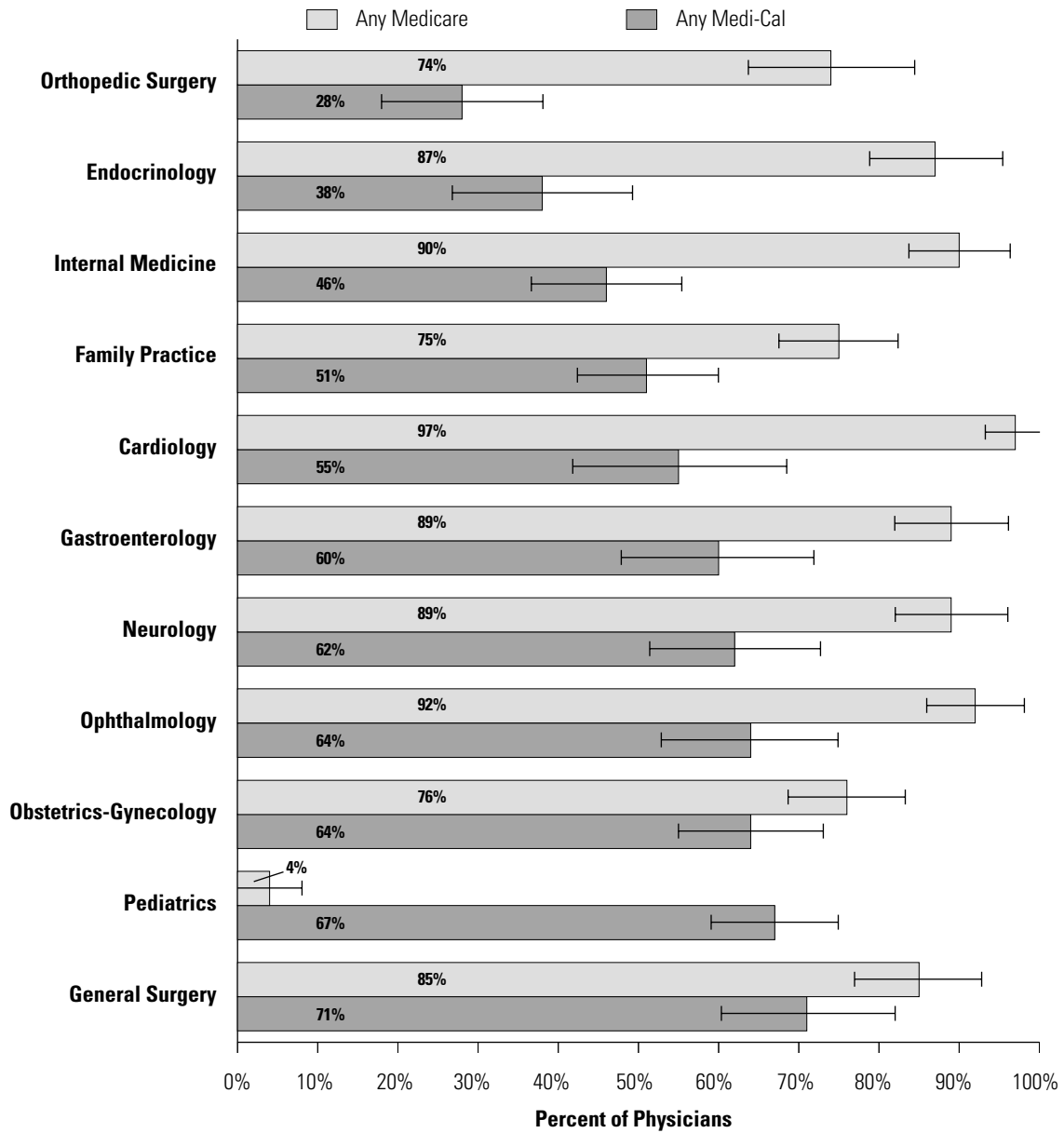
Physician participation rates in Medi-Cal were substantially lower than for the other major public insurance program, Medicare (Figure 4). Of the 11 physician specialties, only pediatrics reported more Medi-Cal patients than Medicare patients in their practice (for the obvious reason that pediatricians do not care for patients over the age of 65). With the exception of pediatrics, between 74 percent and 97 percent of physicians in the study specialties reported that they had Medicare patients in their practice. The specialty with the smallest difference between Medicare and Medi-Cal participation was obstetrics-gynecology (76 percent versus 64 percent).

**Figure 3. Physician Participation in Medi-Cal by Specialty, 2001**



Source: UCSF Surveys of California Physicians: 1996, 1998, and 2001  
 Note: —| represents 95 percent confidence interval.

**Figure 4. Physician Participation in Medi-Cal and Medicare by Specialty, 2001**



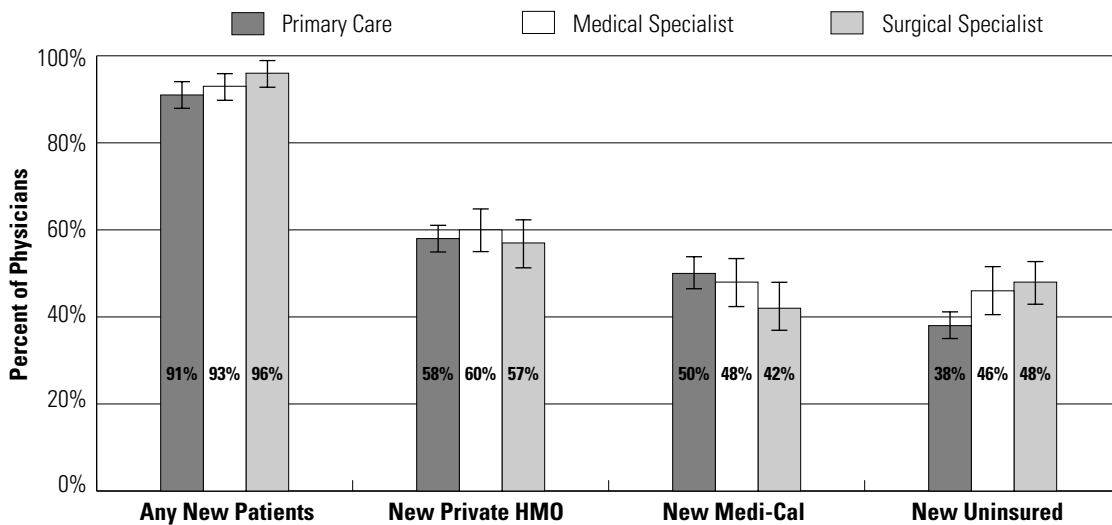
Source: UCSF Survey of California Physicians, 2001

Note: — represents 95 percent confidence interval.

In 2001, the percentage of physicians accepting new Medi-Cal patients was significantly lower than the percentage that were accepting any new patients. More than 90 percent of physicians practicing in California's large urban counties reported in 2001 that they were accepting new patients into their practice (Figure 5). Approximately two thirds were accepting new private HMO patients, and about half were accepting new Medi-Cal patients. A greater percentage of primary care physicians were accepting new Medi-Cal patients into their practices than new uninsured patients (50 percent versus 38 percent). Medical specialists and surgical specialists accepted new Medi-Cal into their practice at about the same rate that they accepted new uninsured patients.

There was a small but not statistically significant downward trend over time in physicians' willingness to accept new Medi-Cal patients into their practice (Figure 6). The most significant

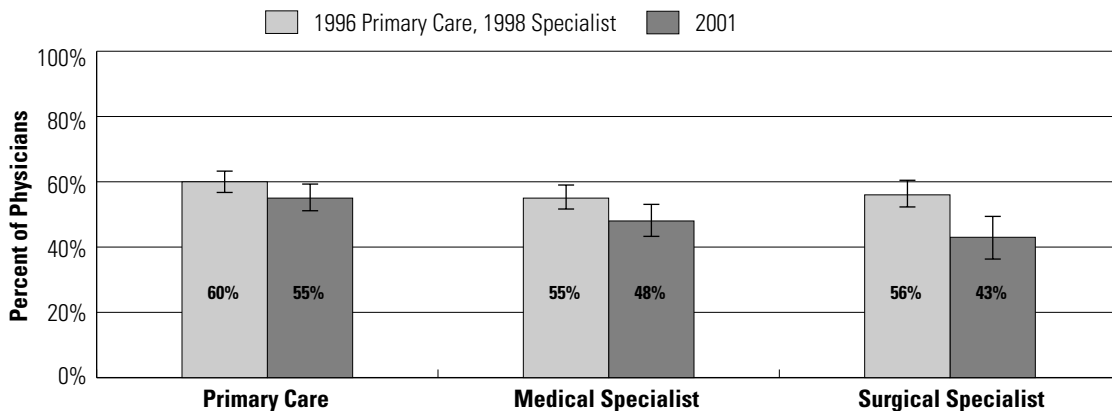
**Figure 5. Physicians Accepting New Patients by Insurance Type, 2001**



Source: UCSF Survey of California Physicians, 2001

Note: — represents 95 percent confidence interval.

**Figure 6. Urban Physicians Accepting New Medi-Cal Patients**



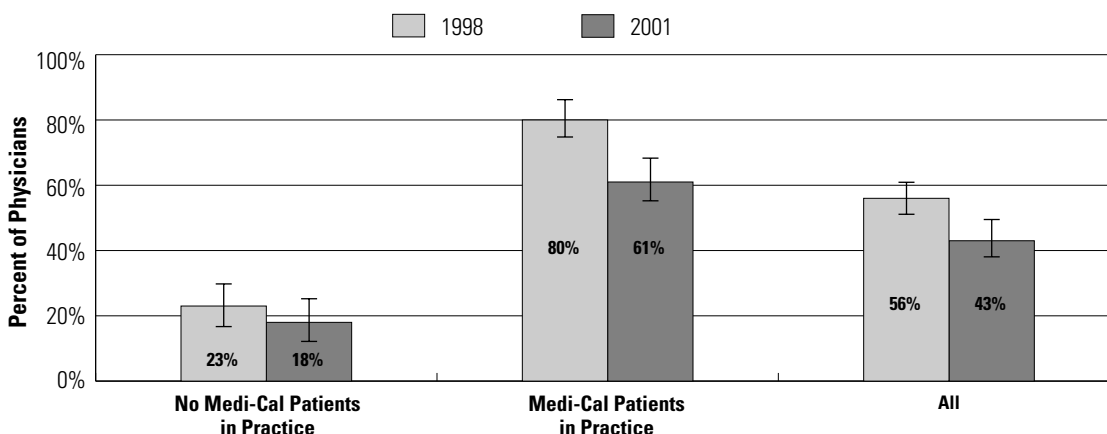
Source: UCSF Surveys of California Physicians: 1996, 1998, and 2001

Note: — represents 95 percent confidence interval.

decline was among surgical specialists. Of those who reported that they were accepting any new patients, the percentage who were taking new Medi-Cal patients decreased from 56 percent to 43 percent between 1998 and 2001. The decreased willingness to accept new Medi-Cal patients was seen both among physicians with and without existing Medi-Cal patients in their practice. Among surgical specialists with existing Medi-Cal patients in their practice, the percentage who reported that they were unwilling to accept new Medi-Cal patients nearly doubled over time from 20 percent in 1998 to 39 percent in 2001 (80 percent to 61 percent acceptance rate) (Figure 7).

The average concentration of Medi-Cal patients in participating physicians' practices did not change significantly over time (Figure 8). Among primary care physicians who had Medi-Cal patients in their practice, the median concentration was 10 percent in 1996 and 15 percent in 2001. (Results are displayed as medians rather than means to address the skewed distribution in practice concentration caused by a few physicians who have very high numbers of Medi-Cal

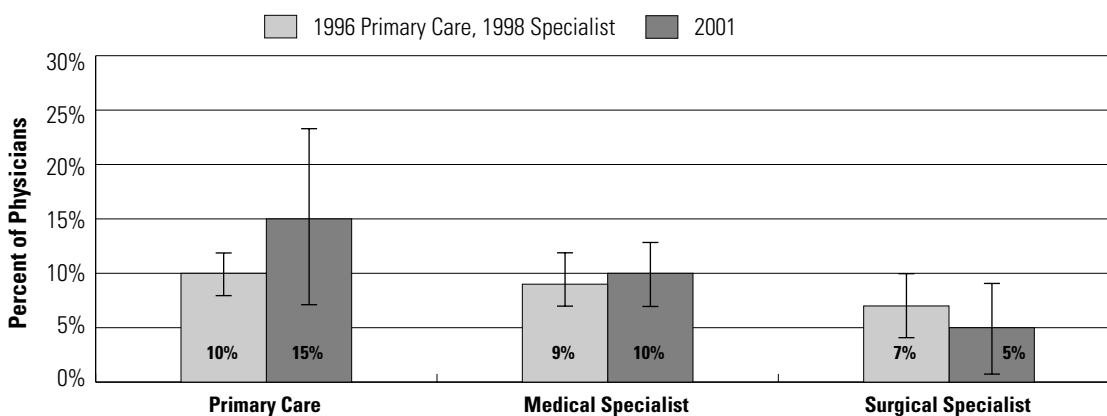
**Figure 7. Urban Surgical Specialist Accepting New Medi-Cal Patients**



Source: UCSF Surveys of California Physicians: 1998 and 2001

Note: — represents 95 percent confidence interval.

**Figure 8. Median Percent Medi-Cal among Urban Participating Physicians**



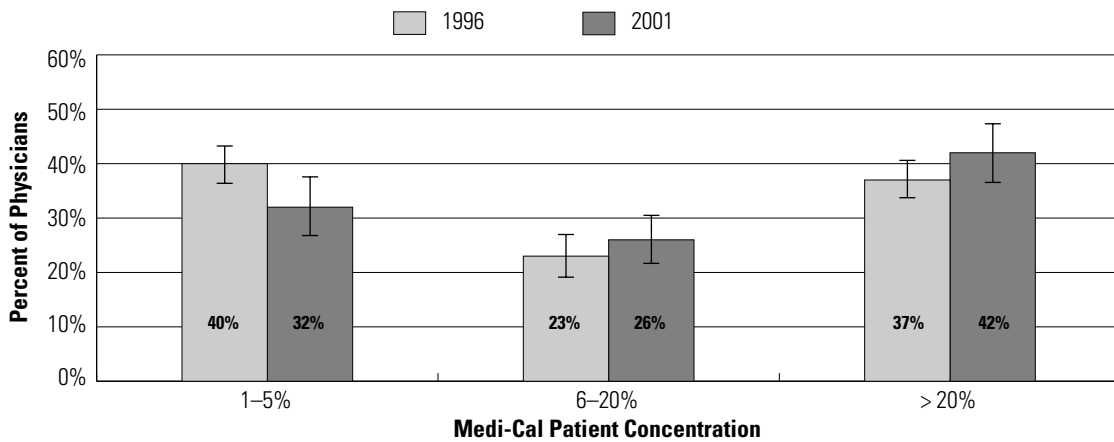
Source: UCSF Surveys of California Physicians: 1996, 1998, and 2001

Note: — represents 95 percent confidence interval.

patients in their practice.) Among medical specialists, the median concentration of Medi-Cal patients among participating physicians was 9 percent in 1998 and 10 percent in 2001. For both groups, there was a trend toward an increase over time in the percentage of physicians who reported that Medi-Cal patients made up more than 20 percent of their practice (Figures 9 and 10). For surgical specialists with Medi-Cal patients in their practice, the median concentration of Medi-Cal patients in their practice decreased from 7 percent to 5 percent over time (Figure 8). There was little change over time in the percentage of surgical specialists who reported that Medi-Cal patients comprised more than 20 percent of their practice (Figure 11).

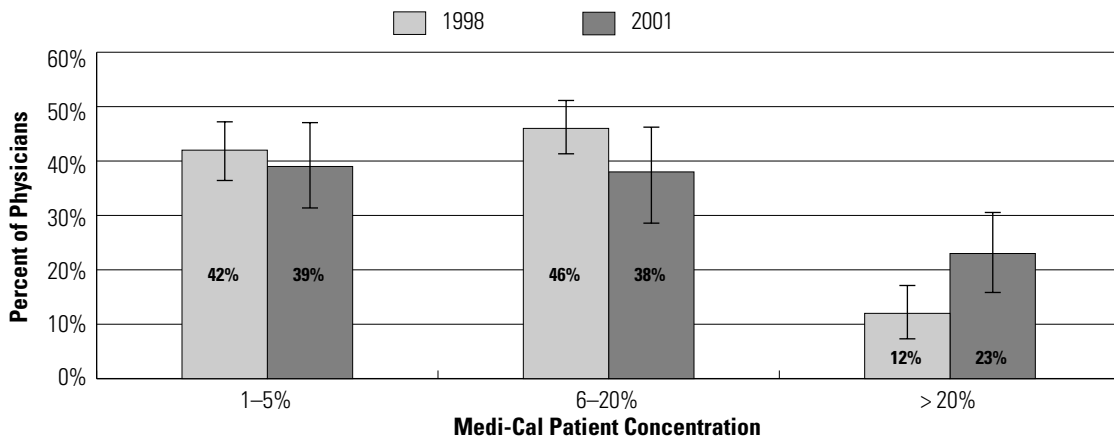
Summing the number of visits primary care physicians provided to Medi-Cal patients, beginning with the physicians who provided the most visits and moving toward those who provided the least, reveals that approximately 25 percent of all primary care physicians provided 80 percent of primary care visits to Medi-Cal patients in 2001 (Figure 12).

**Figure 9. Percent of Patients in Medi-Cal among Participating Primary Care Physicians**



Source: UCSF Surveys of California Physicians: 1996 and 2001  
 Note: — represents 95 percent confidence interval.

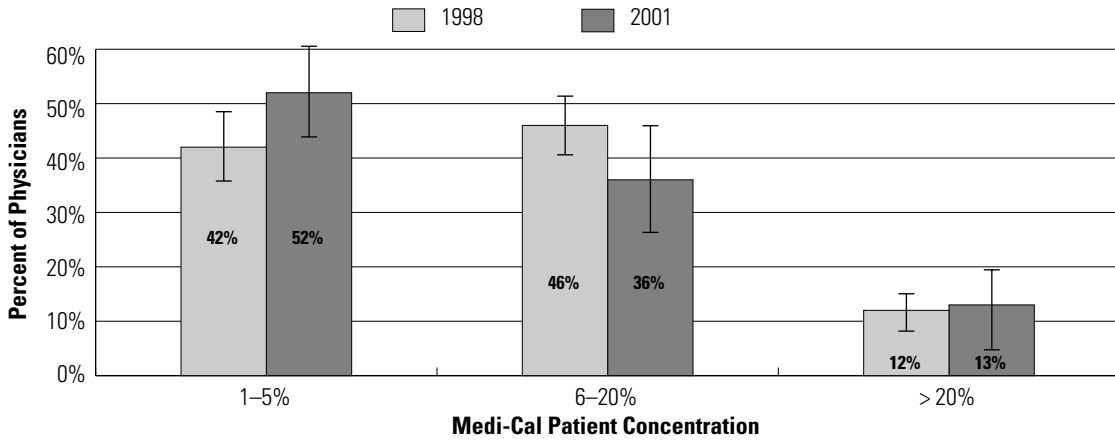
**Figure 10. Percent of Patients in Medi-Cal among Participating Medical Specialists**



Source: UCSF Surveys of California Physicians: 1998 and 2001  
 Note: — represents 95 percent confidence interval.

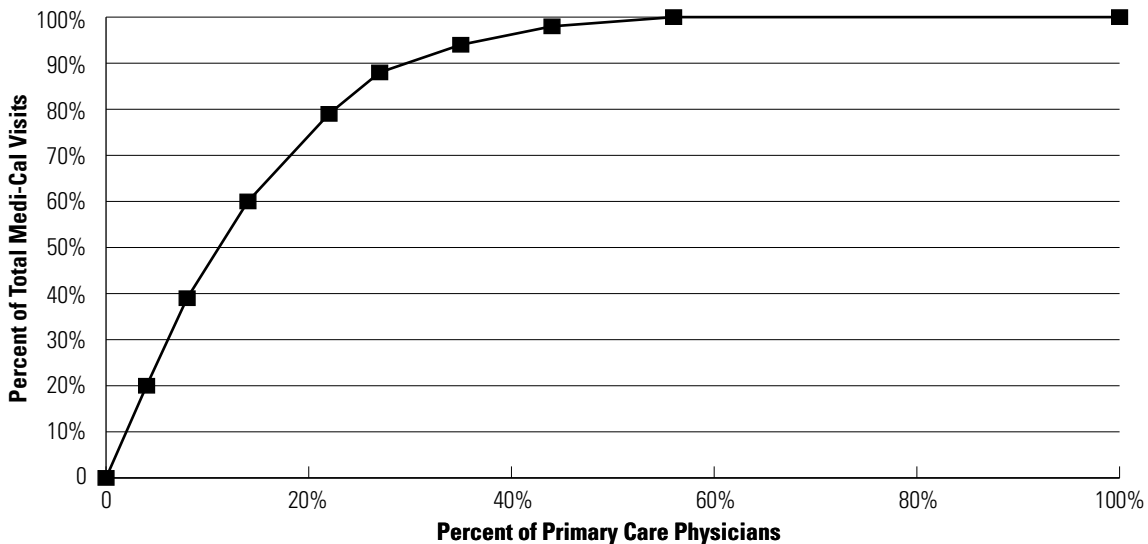


**Figure 11. Percent of Patients in Medi-Cal among Participating Surgical Specialists**



Source: UCSF Surveys of California Physicians: 1998 and 2001  
 Note: — represents 95 percent confidence interval.

**Figure 12. Distribution of Medi-Cal Visits Across All Primary Care Physicians, 2001**



Source: UCSF Survey of California Physicians, 2001  
 Note: — represents 95 percent confidence interval.

Overall, the availability of physicians for Medi-Cal beneficiaries in 2001 was significantly less than what is recommended by federal workforce standards. The availability of physicians for Medi-Cal beneficiaries is the product of three variables: (1) the willingness of physicians to participate in Medi-Cal; (2) the concentration of Medi-Cal patients in the practices of participating physicians; and (3) the overall supply of physicians in the region. As indicated in Table 1, the number of primary care physicians available per 100,000 Medi-Cal patients was 46, compared to 70 for the population as a whole. Medi-Cal’s ratio fell well below the workforce standard of 60 to 80 per 100,000, established by the Health Resources Services Administration. The mean number of medical specialists per 100,000 was less than half for Medi-Cal

**Table 1. Supply of Physicians in Urban Areas, 2001**

	Number of Physicians	Number of Medi-Cal Beneficiaries	Number of Residents	Medi-Cal Physician Equivalents/100,000 Medi-Cal Beneficiaries	All Physicians/100,000 Residents
Primary Care	18,469	4,637,316	26,410,765	46	70
Obstetrics-Gynecology	3,181	4,637,316	26,410,765	15	12
Medical Specialists	2,707	4,637,316	26,410,765	4	10
Surgical Specialists	4,022	4,637,316	26,410,765	5	15

Sources: UCSF Survey of California Physicians, 2001; AMA Physician Masterfile, 2001; California Department of Health Services, Medical Care Statistics Section, 2001; and U.S. Census, 2000

beneficiaries (4 per 100,000) than for the population as a whole (10 per 100,000), and the number of surgical specialists available to Medi-Cal beneficiaries (5 per 100,000) was one-third of that available to the population as a whole (15 per 100,000). (See the methodology section for a description of how these data were calculated.)

## Physician Characteristics

There were few dramatic changes in the demographic and training characteristics of Medi-Cal participating primary care physicians over time (Table 2). The decline in primary care physicians' participation in Medi-Cal was observed in most of the examined demographic and

**Table 2. Percentage of Urban Primary Care Physicians Participating in Medi-Cal by Demographic, Training, and Practice Characteristics**

		1996	2001	Net Change
<b>Age</b>	<50	60	53	-7
	≥50	57	59	2
<b>Gender</b>	Female	64	58	-6
	Male	57	53	-4
<b>Race/Ethnicity</b>	White	55	51	-4
	Non-White	64	64	0
<b>Board Certification</b>	Yes	58	54	-4
	No	61	64	3
<b>Education</b>	International Medical Graduate	71	68	-3
	U.S. Medical Graduate	54	50	-4
<b>Practice size</b>	Solo	61	60	-1
	2-10	66	50	-16
	>10	62	75	13
<b>Income</b>	≤\$140,000/yr.	62	57	-5
	>\$140,000/yr.	50	55	5
<b>Practice Setting</b>	Clinic	73	100	27
	Office Based	63	60	-3
	Staff/Group Model HMO	39	37	-2

Source: UCSF Surveys of California Physicians: 1996 and 2001

**Table 3. Percentage of Urban Medical Specialists Participating in Medi-Cal by Demographic, Training, and Practice Characteristics**

		1998	2001	Net Change
<b>Age</b>	<50	60	52	-8
	≥50	54	56	2
<b>Gender</b>	Female	54	60	6
	Male	57	56	-1
<b>Race/Ethnicity</b>	White	53	53	0
	Non-White	65	60	-5
<b>Board Certification</b>	Yes	56	55	-1
	No	60	56	-4
<b>Education</b>	International Medical Graduate	61	60	-1
	U.S. Medical Graduate	54	52	-2
<b>Practice size</b>	Solo	58	47	-11
	2-10	67	58	-9
	>10	75	57	-18
<b>Income</b>	≤\$200,000/yr.	58	64	6
	>\$200,000/yr.	58	49	-9
<b>Practice Setting</b>	Clinic	100	100	0
	Office Based	63	53	-10
	Staff/Group Model HMO	10	45	35

Source: UCSF Surveys of California Physicians: 1998 and 2001

**Table 4. Percentage of Urban Surgical Specialists Participating in Medi-Cal by Demographic, Training, and Practice Characteristics**

		1998	2001	Net Change
<b>Age</b>	<50	63	65	2
	≥50	51	45	-6
<b>Gender</b>	Female	69	76	7
	Male	55	48	-7
<b>Race/Ethnicity</b>	White	52	54	2
	Non-White	65	49	-16
<b>Board Certification</b>	Yes	56	51	-5
	No	62	75	13
<b>Education</b>	International Medical Graduate	64	58	-6
	U.S. Medical Graduate	55	51	-4
<b>Practice size</b>	Solo	55	54	-1
	2-10	65	59	-6
	>10	78	69	-9
<b>Income</b>	≤\$200,000/yr.	62	65	3
	>\$200,000/yr.	49	46	-3
<b>Practice Setting</b>	Clinic	—	—	—
	Office Based	61	57	-4
	Staff/Group Model HMO	18	27	9

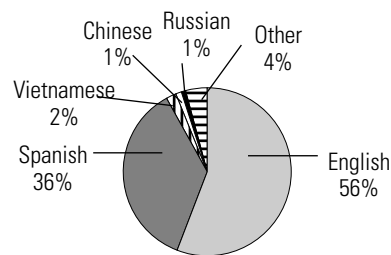
Source: UCSF Surveys of California Physicians: 1998 and 2001

training subgroups. Practice size and setting appeared to be somewhat more predictive of changes over time with increased Medi-Cal participation among physicians practicing in groups of more than 10 physicians and among clinic-based physicians.

Similarly, the decline in medical and surgical specialists' participation in Medi-Cal was reflected in most of the demographic and training subgroups (Tables 3 and 4). The percentage of non-White medical specialists and surgical specialists participating in Medi-Cal decreased over time, but these percentages should be viewed with some caution because of the small sample sizes in these subgroups. In contrast to the primary care physicians, increased participation was not reported among medical and surgical specialists working in groups with more than ten physicians.

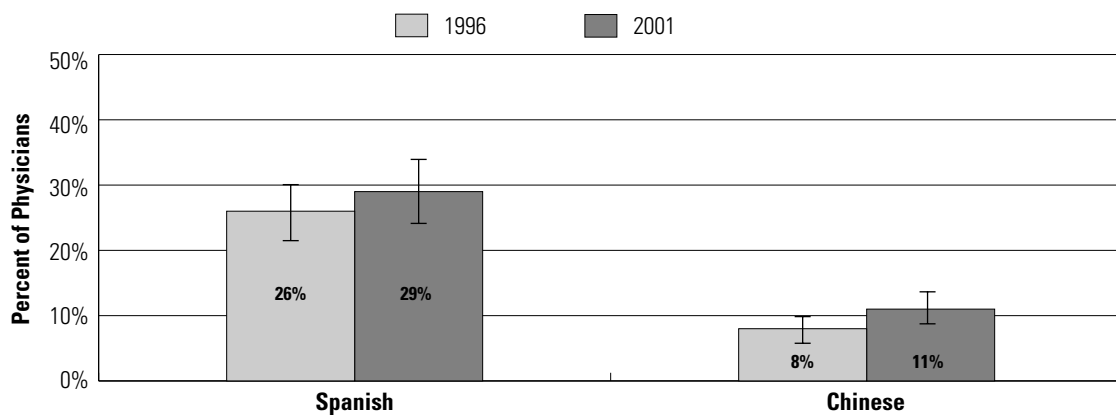
In 2001, more than a third of Medi-Cal beneficiaries reported that their primary language was not English; 36 percent of beneficiaries reported Spanish as their primary language (Figure 13). A similar proportion of primary care physicians participating in Medi-Cal (29 percent) reported in 2001 that they spoke Spanish (Figure 14). This represents a small but not statistically significant increase from the 26 percent who reported in 1996 that they spoke Spanish. During both time periods there were fewer Medi-Cal participating medical and surgical specialists than primary care physicians who spoke Spanish and Chinese (Figures 15 and 16).

**Figure 13. Medi-Cal Beneficiaries by Primary Language, 2001**



Source: California Department of Health Services, Medical Care Statistics Section, 2001

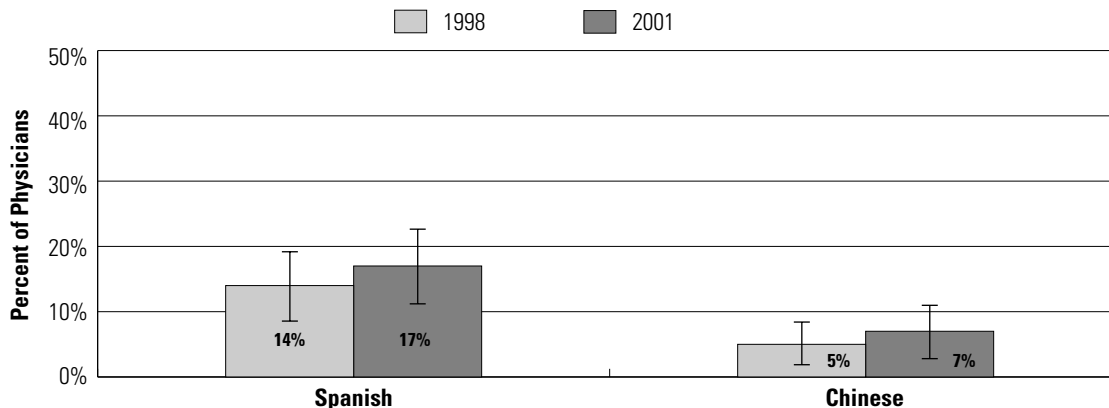
**Figure 14. Participating Primary Care Physician Language Fluency**



Source: UCSF Surveys of California Physicians: 1996 and 2001

Note: Error bars represent 95 percent confidence interval.

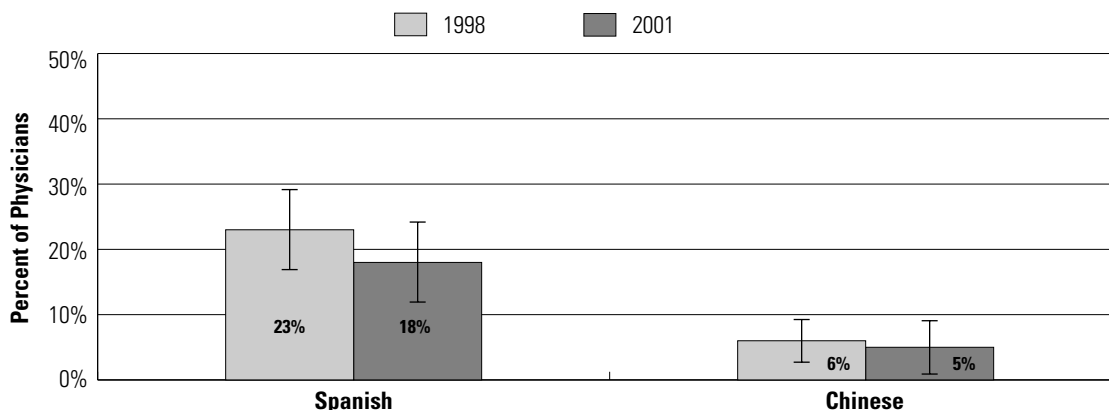
**Figure 15. Participating Medical Specialist Language Fluency**



Source: UCSF Surveys of California Physicians: 1998 and 2001

Note: — represents 95 percent confidence interval.

**Figure 16. Participating Surgical Specialist Language Fluency**



Source: UCSF Surveys of California Physicians: 1998 and 2001

Note: — represents 95 percent confidence interval.

The majority of Medi-Cal physicians reported in 2001 that either they or someone in their office setting could provide Spanish translation. Among Medi-Cal physicians, 85 percent of primary care physicians, 73 percent of medical specialists, and 69 percent of surgical specialists reported that Spanish translation was available in their offices (Table 5). Chinese dialects were spoken by Medi-Cal physicians or their office staff in 22 percent of primary care physicians' offices, 15 percent of medical specialists' offices, and 14 percent of surgical specialists' offices.

## Perceptions of Medi-Cal

In general, physicians' reluctance to participate in the Medi-Cal program may be explained by their negative perceptions of the Medi-Cal program and Medi-Cal managed care. The vast majority of urban primary care physicians reported that it was difficult to care for Medi-Cal patients, that Medi-Cal reimbursement was inadequate, and that the program had burden-

**Table 5. Language Skills of Participating Medi-Cal Physicians, 2001**

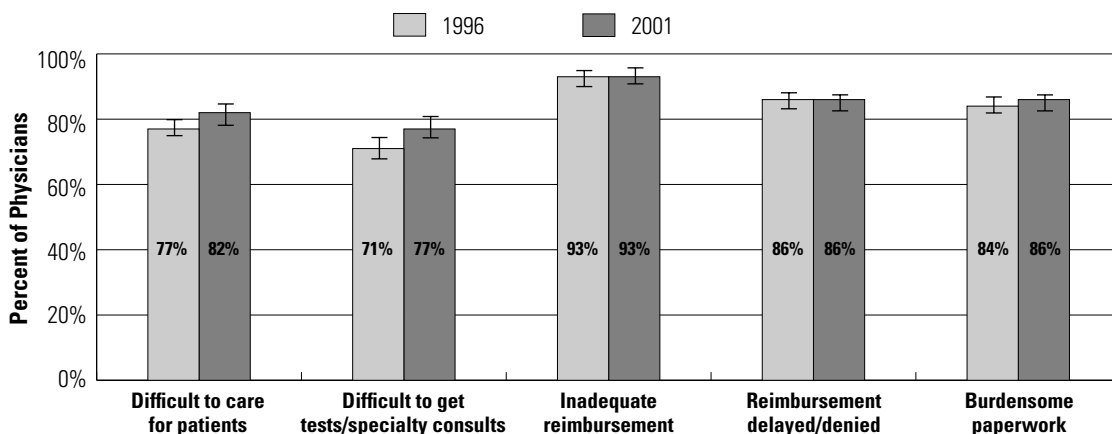
	<i>Primary Care</i>		<i>Medical Specialists</i>		<i>Surgical Specialists</i>	
	"I speak language fluently"	"Physician or office staff fluent/translates"	"I speak language fluently"	"Physician or office staff fluent/translates"	"I speak language fluently"	"Physician or office staff fluent/translates"
Spanish	29%	85%	17%	73%	18%	69%
Chinese	11%	22%	7%	15%	5%	14%

Source: UCSF Survey of California Physicians, 2001

some paperwork (Figure 17). Between 1996 and 2001, primary care physicians' negative perceptions of Medi-Cal reimbursement remained relatively stable. (Medical specialists and surgical specialists were not asked these questions in prior surveys.)

Despite the fact that a Medi-Cal physician rate increase was implemented statewide between the time of the baseline and the follow-up surveys (in August 2000), nearly half of all surveyed physicians reported that they did not know if their Medi-Cal payments had changed in the past 18 months (Figures 18, 19, and 20). Fee increases varied by service and patient characteristics, but a typical office visit for an established patient increased from approximately \$18 to \$24. The greater the concentration of Medi-Cal patients in a physician's practice the more likely the physician was to know that Medi-Cal payments had increased in the previous 18 months. However, less than one-quarter of physicians with Medi-Cal patients in their practice reported that Medi-Cal rates increased in the past 18 months. And, even among physicians whose practice concentrations were more than 20 percent Medi-Cal patients, less than a third reported that Medi-Cal payment rates had increased. This finding may be due in part to the fact that the rate increases were not implemented across the board, but rather were targeted at specific services. Physicians who infrequently provide the services that received the largest increases may have been less likely to notice the change.

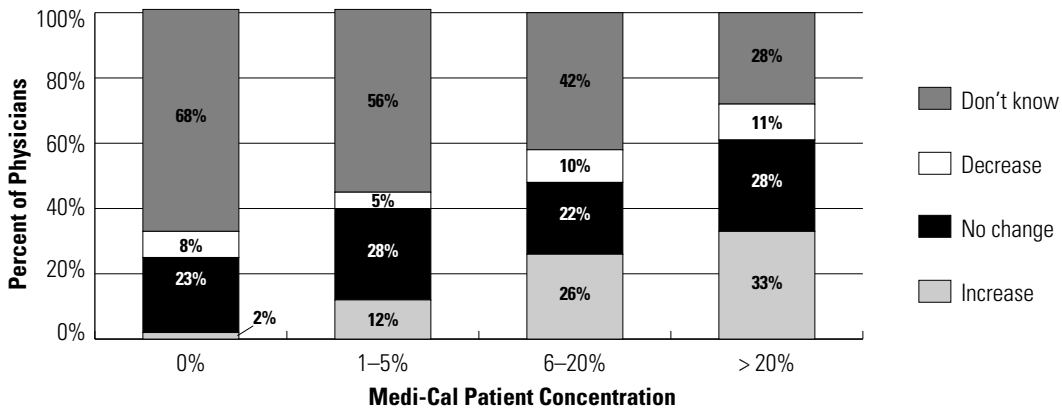
**Figure 17. Urban Primary Care Physicians' Perceptions about the Medi-Cal Program**



Source: UCSF Surveys of California Physicians: 1996 and 2001

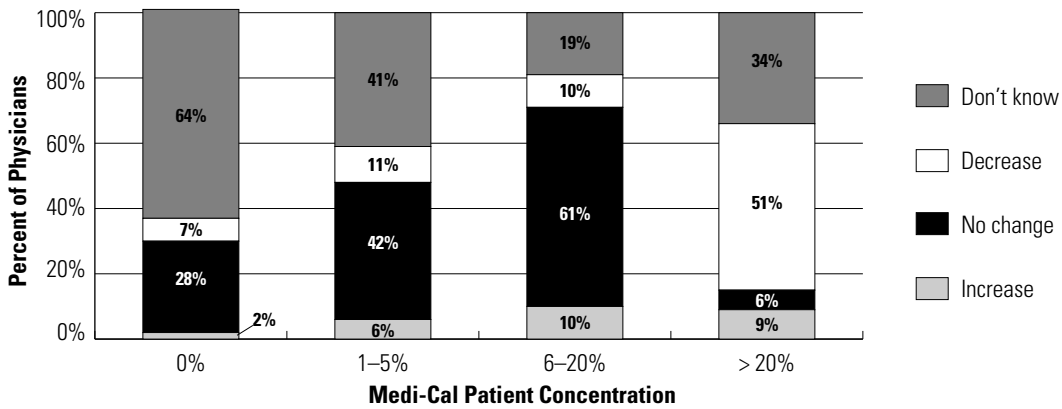
Note: — represents 95 percent confidence interval.

**Figure 18. Urban Primary Care Physicians' Perceptions of Medi-Cal Rate Changes in Prior 18 Months by Participation in Medi-Cal, 2001**



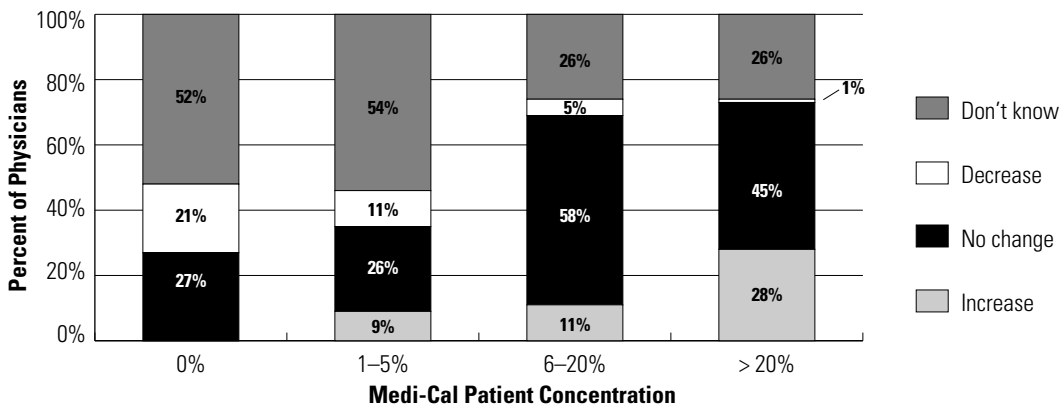
Source: UCSF Survey of California Physicians, 2001

**Figure 19. Urban Medical Specialists' Perceptions of Medi-Cal Rate Changes in Prior 18 Months by Participation in Medi-Cal, 2001**



Source: UCSF Survey of California Physicians, 2001

**Figure 20. Urban Surgical Specialists' Perceptions of Medi-Cal Rate Changes in Prior 18 Months by Participation in Medi-Cal, 2001**



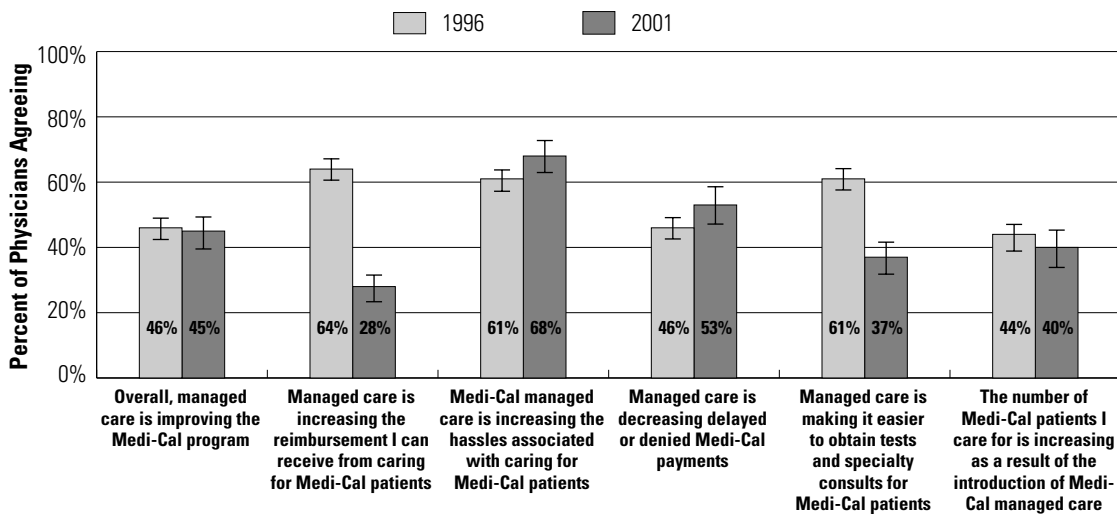
Source: UCSF Survey of California Physicians, 2001

Primary care and specialist physicians reported predominantly negative perceptions of Medi-Cal managed care and their opinions about many aspects of this delivery system have become more negative over time (Figure 21). Among primary care physicians, there was little change over time in the percentage who reported that Medi-Cal managed care was improving the program but a sharp decrease in the percentage who reported that managed care was making it easier to obtain tests and consultations for Medi-Cal patients (from 61 percent in 1996 to 37 percent in 2001). There was also an increase over time in the percentage who said Medi-Cal managed care was increasing hassles associated with caring for Medi-Cal patients (from 61 percent to 68 percent). On a positive note, there was an increase over time in the percentage of physicians who reported that managed care was decreasing delayed or denied Medi-Cal payments (from 46 percent in 1996 to 53 percent in 2001).

Perhaps most notably, primary care physicians expressed increasingly negative opinions of Medi-Cal managed care's effect on reimbursement rates. In 1996, almost two-thirds (64 percent) of primary care physicians expressed the positive opinion that Medi-Cal managed care was increasing the reimbursement they could receive for caring for Medi-Cal patients. By 2001, the percentage of primary care physicians who expressed this opinion dropped dramatically to 28 percent.

The findings, with a few exceptions, were similar for medical and surgical specialists (Figures 22 and 23). On the positive side, there was a decline in the percentage of surgical specialists over time who reported that managed care was increasing the hassles associated with caring for Medi-Cal patients. There was a small but not statistically significant increase in the percentage of surgical specialists who reported that Medi-Cal managed was decreasing delayed or denied payments. However, there was a substantial decrease over time in the percentage of medical

**Figure 21. Urban Primary Care Physicians' Perceptions about Medi-Cal Managed Care**



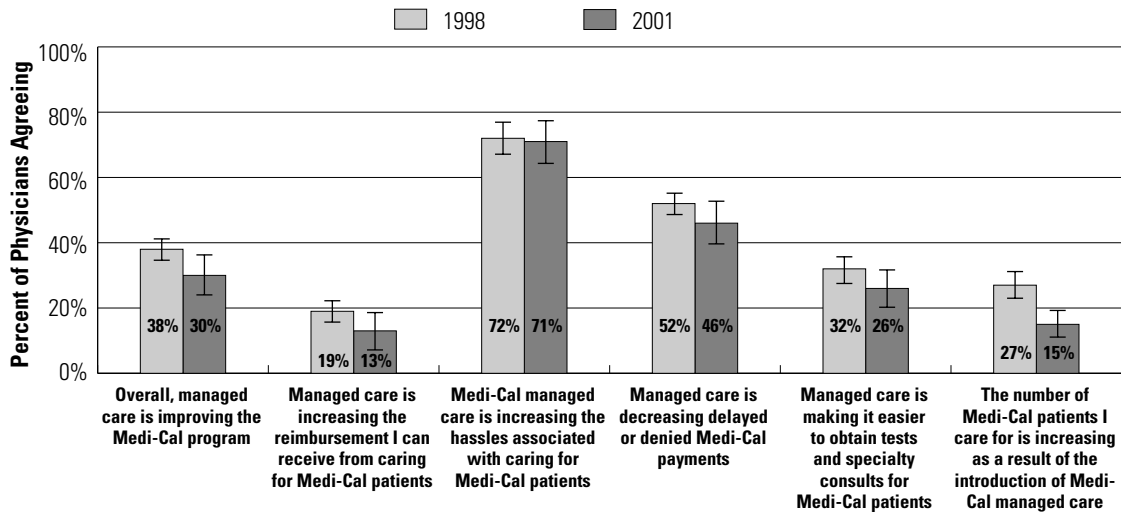
Source: UCSF Surveys of California Physicians: 1996 and 2001

Note: — represents 95 percent confidence interval.



and surgical specialists who reported that managed care was improving the Medi-Cal program or that the number of Medi-Cal patients in their practice was increasing as a result of managed care. Less than 20 percent of medical and surgical specialists reported in 1998 that managed care was increasing their reimbursement for Medi-Cal patients, and that percentage declined slightly over time.

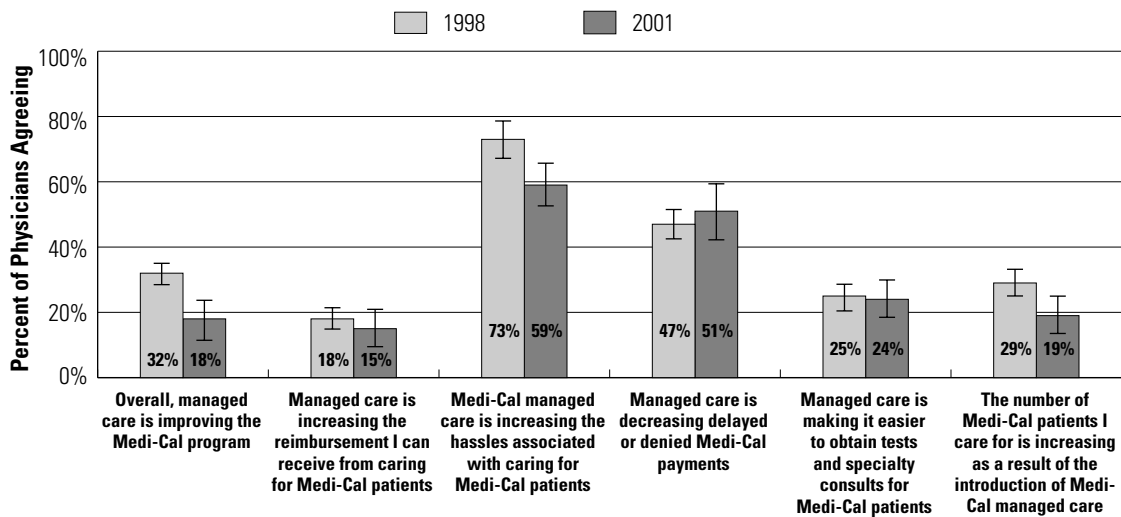
**Figure 22. Urban Medical Specialists' Perceptions about Medi-Cal Managed Care**



Source: UCSF Surveys of California Physicians: 1998 and 2001

Note: — represents 95 percent confidence interval.

**Figure 23. Urban Surgical Specialists' Perceptions about Medi-Cal Managed Care**



Source: UCSF Surveys of California Physicians: 1998 and 2001

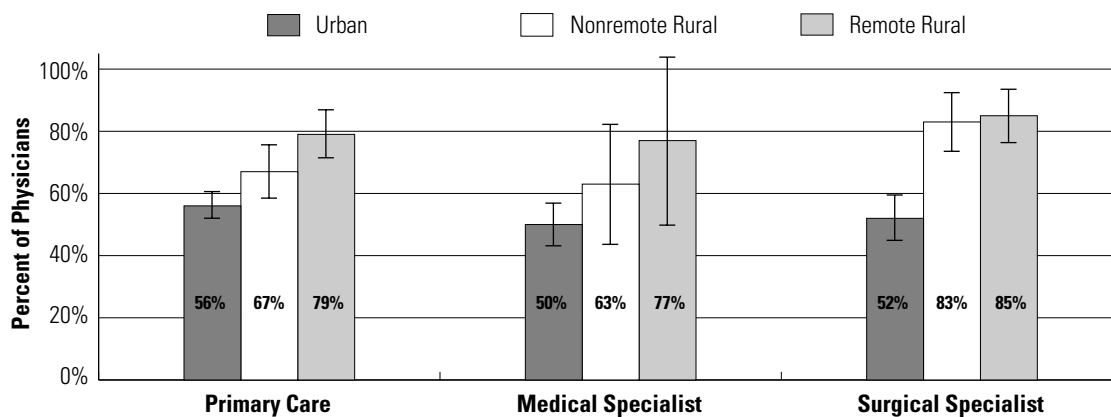
Note: — represents 95 percent confidence interval.

## IV. Comparison of Urban and Rural Physicians, 2001

### Participation in Medi-Cal

Rural physicians were much more likely than urban physicians to report that they participated in Medi-Cal. Physicians in remote rural communities were especially likely to care for Medi-Cal patients (Figure 24). In remote rural regions, 79 percent of primary care physicians had Medi-Cal patients in their practice, compared with 67 percent of primary care physicians in less remote rural regions and 56 percent of primary care physicians in urban communities. A similar pattern was observed for medical specialists. For surgical specialists, the vast majority of physicians in both nonremote rural (83 percent) and remote rural areas (85 percent) had Medi-Cal patients in their practice, compared with only about half of urban surgical specialists who had Medi-Cal patients in their practice.

**Figure 24. Physicians with Any Medi-Cal Patients in Practice, 2001**



Source: UCSF Survey of California Physicians, 2001

Note: — represents 95 percent confidence interval.

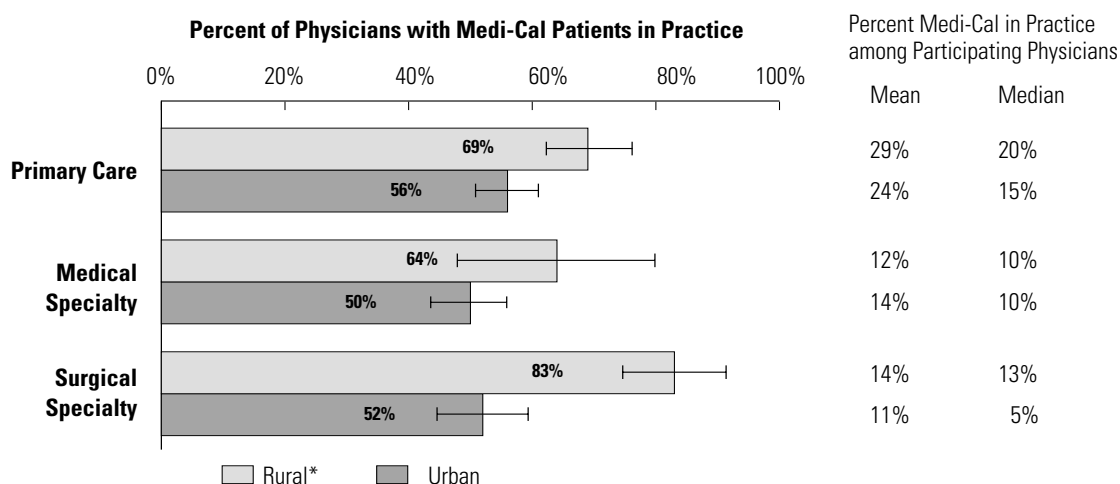
Participating rural Medi-Cal physicians also tended to have a greater concentration of Medi-Cal patients in their practice than did participating urban physicians (Figure 25). The median concentration of Medi-Cal patients in the practices of participating rural physicians was 20 percent for primary care physicians, 10 percent for medical specialists, and 13 percent for surgical specialists. The comparable concentrations for urban participating Medi-Cal physicians were 15 percent for primary care physicians, 10 percent for medical specialists, and 5 percent for surgical specialists.

The availability of physicians for Medi-Cal beneficiaries in rural areas is the product of several variables. Two of these variables are described in Figures 24 and 25: (1) the willingness of physicians to participate in Medi-Cal; and (2) the concentration of Medi-Cal patients in the practices of participating physicians. The third key variable is the overall supply of physicians in the region.

For the first two variables, rural Medi-Cal beneficiaries have an advantage over urban beneficiaries due to the greater rate of rural physician participation in Medi-Cal. However, in most specialties, there are fewer physicians overall per capita in rural regions than in urban areas. As indicated in Table 6, with the exception of surgical specialists, urban areas of California have more total physicians per 100,000 population (all residents) than do rural areas. (The lack of difference in the overall supply of surgical specialists between rural and urban areas is largely due to the greater proportion of general surgeons practicing in rural communities, with fewer surgical subspecialists located in these areas.)

The net result of these three factors is that despite a smaller overall supply of physicians in rural areas, the supply of participating Medi-Cal physician equivalents per 100,000 Medi-Cal beneficiaries is similar in urban and rural regions of the state. (See the methodology section for

**Figure 25. Medi-Cal Participation and Practice Concentration**



Source: UCSF Survey of California Physicians, 2001

Note: — represents 95 percent confidence interval.

\*Includes remote rural and nonremote rural

**Table 6. Supply of Physicians in Urban Versus Rural Areas, 2001**

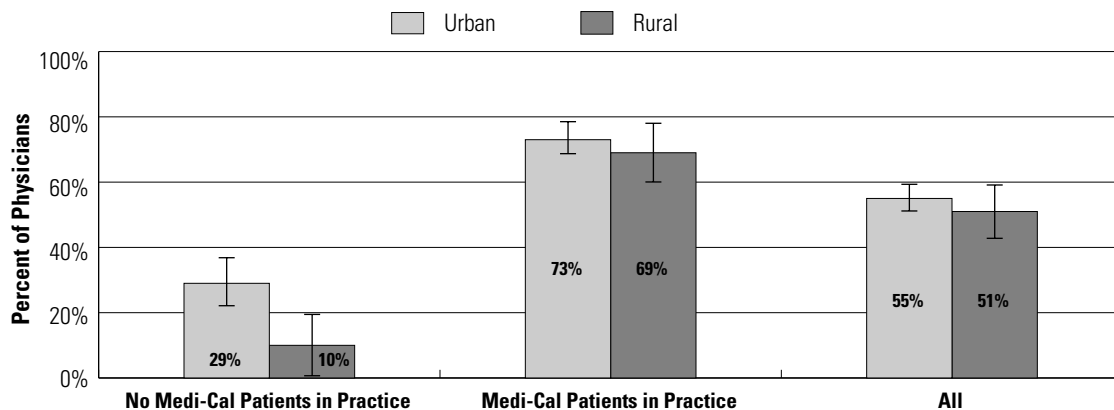
	Number of Physicians	Number of Medi-Cal Beneficiaries	Number of Residents	Medi-Cal Physician Equivalents/100,000 Medi-Cal Beneficiaries	All Physicians/100,000 Residents
<b>Urban</b>					
Primary Care	18,469	4,637,316	26,410,765	46	70
Obstetrics-Gynecology	3,181	4,637,316	26,410,765	15	12
Medical Specialists	2,707	4,637,316	26,410,765	4	10
Surgical Specialists	4,022	4,637,316	26,410,765	5	15
<b>Rural</b>					
Primary Care	2,173	742,360	3,989,474	53	54
Obstetrics-Gynecology	261	742,360	3,989,474	13	7
Medical Specialists	273	742,360	3,989,474	3	7
Surgical Specialists	600	742,360	3,989,474	10	15

Sources: UCSF Survey of California Physicians, 2001; AMA Physician Masterfile, 2001; California Department of Health Services, Medical Care Statistics Section, 2001; and U.S. Census, 2000

a description of how physician equivalents were calculated.) It should be noted that the data on physician supply in Table 6 do not necessarily indicate whether physicians are located at a convenient distance from patients. Although the overall count of Medi-Cal physician equivalents in rural communities may be comparable to those in urban areas, rural populations tend to be dispersed over a much wider area and may have to travel much longer distances to reach physicians, who tend to be clustered in major towns and rural cities.

Surprisingly, although rural physicians were much more likely than urban physicians to have Medi-Cal patients in their practice, they were not necessarily more likely to accept new Medi-Cal patients. Among primary care physicians, similar percentages of rural and urban physicians were accepting new Medi-Cal patients (55 percent versus 51 percent) (Figure 26).

**Figure 26. Primary Care Physicians Accepting New Medi-Cal Patients, 2001**



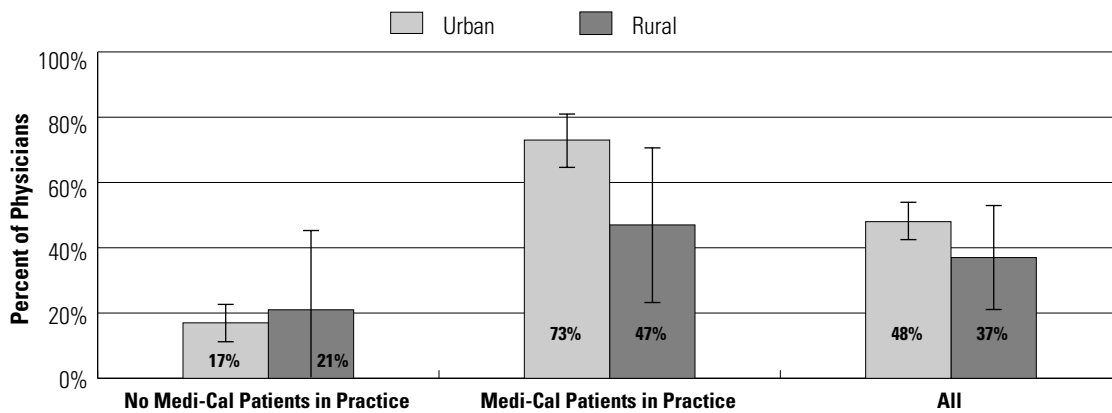
Source: UCSF Survey of California Physicians, 2001

Note: — represents 95 percent confidence interval.

The difference between rural and urban medical specialists was especially pronounced for those physicians who had existing Medi-Cal patients in their practice. Only 47 percent of rural medical specialists with Medi-Cal patients already in their practice were accepting new Medi-Cal patients, compared with 73 percent of urban medical specialists with Medi-Cal patients in their practice (Figure 27). Rural surgical specialists were much more likely than urban surgical specialists to accept new Medi-Cal patients (42 percent versus 76 percent) (Figure 28).

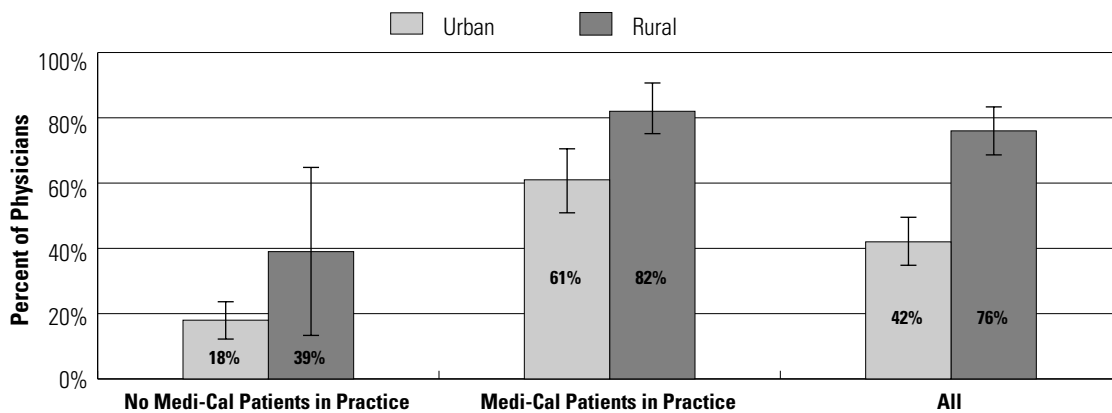
Medi-Cal managed care plays a much smaller role in rural physician practices than it does in urban physician practices. For example, whereas only 32 percent of urban primary care physicians participating in Medi-Cal limited their participation to fee-for-service Medi-Cal patients, 75 percent of rural and 89 percent of remote rural primary care physicians participating in Medi-Cal had no managed care Medi-Cal patients in their practice (Figure 29). This find-

**Figure 27. Medical Specialists Accepting New Medi-Cal Patients, 2001**



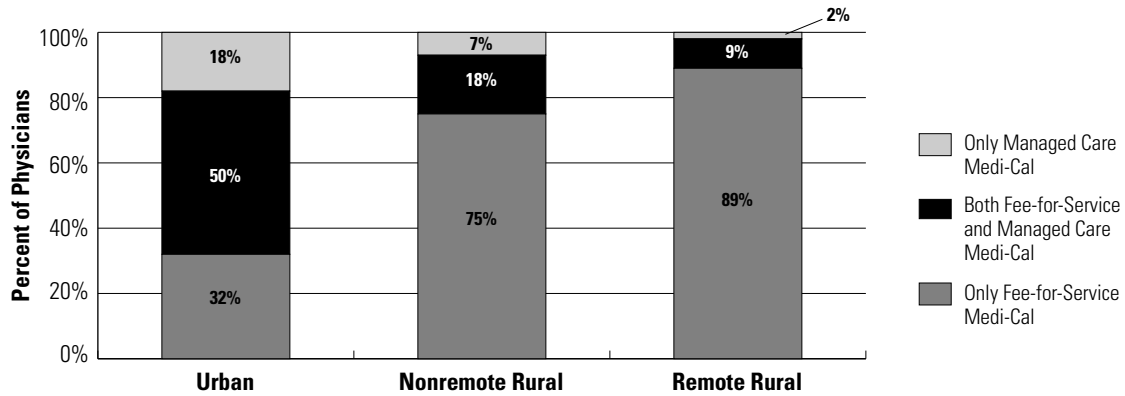
Source: UCSF Survey of California Physicians, 2001  
 Note: — represents 95 percent confidence interval.

**Figure 28. Surgical Specialists Accepting New Medi-Cal Patients, 2001**



Source: UCSF Survey of California Physicians, 2001  
 Note: — represents 95 percent confidence interval.

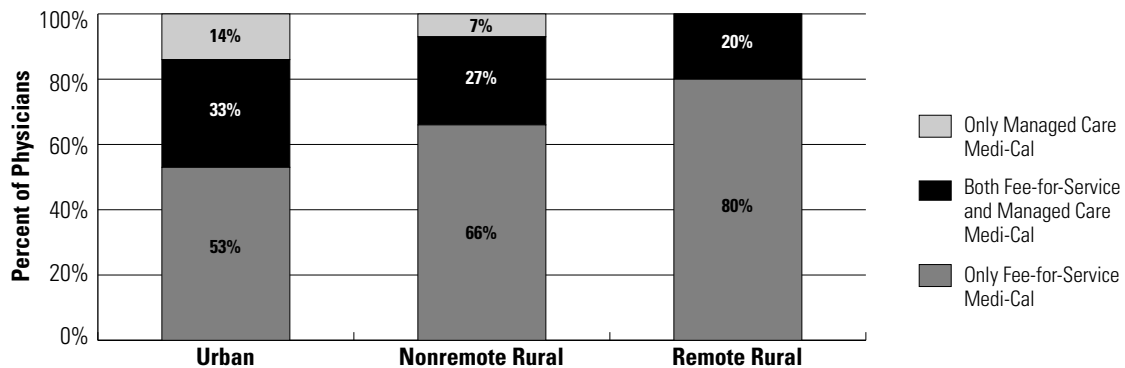
**Figure 29. Type of Medi-Cal Patients among Participating Primary Care Physicians, 2001**



Source: UCSF Survey of California Physicians, 2001

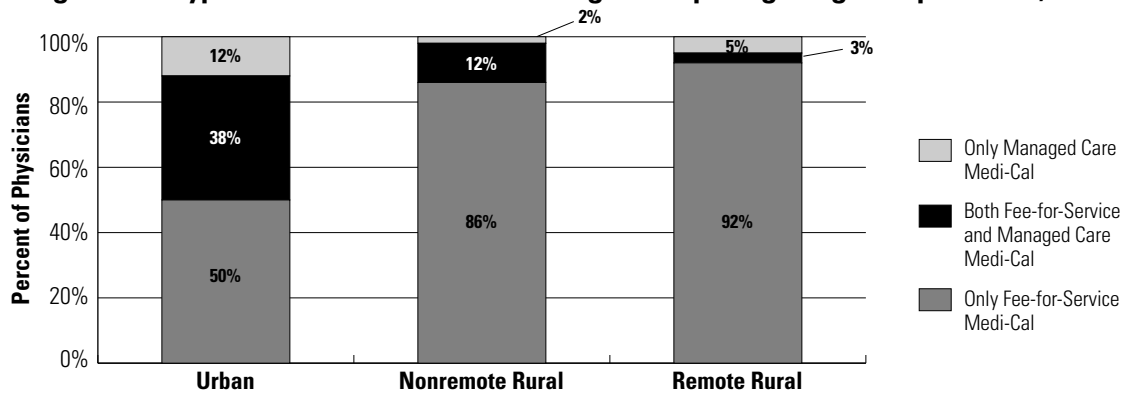
ing is to be expected given that Medi-Cal managed care is primarily available in California's largest urban counties and not in most rural communities. Similarly, medical specialists and surgical specialists working in rural areas were less likely than their urban counterparts to have Med-Cal managed care patients in their practice (Figures 30 and 31).

**Figure 30. Type of Medi-Cal Patients among Participating Medical Specialists, 2001**



Source: UCSF Survey of California Physicians, 2001

**Figure 31. Type of Medi-Cal Patients among Participating Surgical Specialists, 2001**



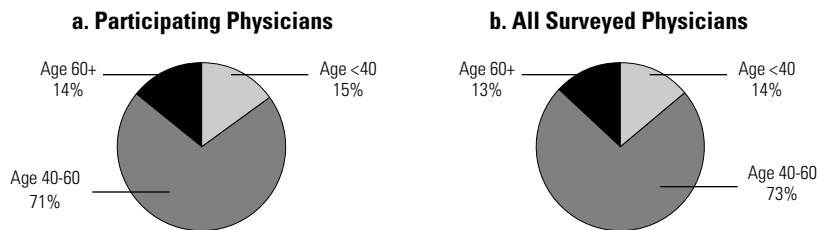
Source: UCSF Survey of California Physicians, 2001

## Physician Characteristics

The characteristics of rural physicians participating in Medi-Cal in 2001 were somewhat different than those of their urban counterparts. However, most of these differences can be explained by the differences in the demographic characteristics of the overall population of rural and urban physicians. Rural physicians participating in Medi-Cal are younger than urban Medi-Cal physicians. Whereas 15 percent of rural Medi-Cal physicians are younger than 40 years of age, only 7 percent of urban Medi-Cal physicians are younger than 40 (Figures 32 and 33). These patterns mirror the age distribution of physicians overall in rural and urban areas of California. Some 14 percent of all rural physicians, compared with 7 percent of all urban physicians, are under age 40. This finding is counter to the widely held belief that rural physicians tend to be older than their urban counterparts. Special programs, such as the National Health Service Corps and Loan Repayment Programs, used to attract recent residency graduates to physician shortage areas may explain the preponderance of young physicians in rural areas.

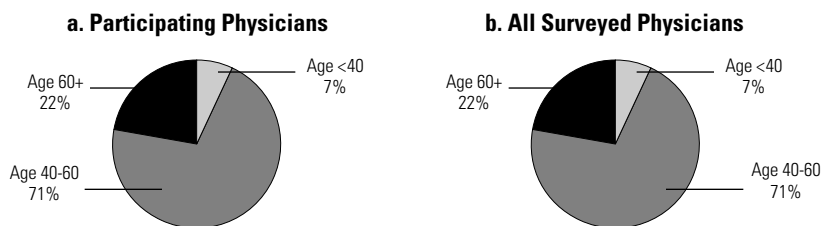
In rural areas, there is a slightly higher percentage of White physicians among Medi-Cal participants (77 percent) than among all surveyed physicians in these communities (73 percent), whereas in urban areas, White physicians constitute a smaller proportion of Medi-Cal participants (59 percent) than of the overall pool of physicians in these areas (63 percent) (Figures 34 and 35). Stated another way, in rural areas White physicians are slightly more likely than non-White physicians to participate in Medi-Cal, whereas in urban areas White physicians are somewhat less likely to participate in Medi-Cal than non-White physicians. (Because of the limited sample size for rural physicians, it is not possible to provide precise estimates of participation data by specific racial-ethnic group.)

**Figure 32. Rural Physician Age, 2001**



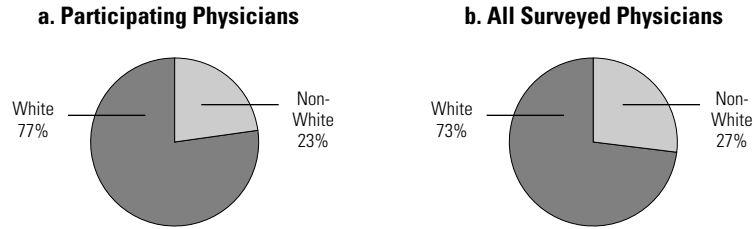
Source: UCSF Survey of California Physicians, 2001

**Figure 33. Urban Physician Age, 2001**



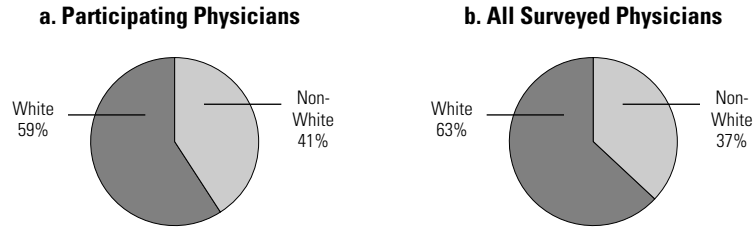
Source: UCSF Survey of California Physicians, 2001

**Figure 34. Rural Physician Race/Ethnicity, 2001**



Source: UCSF Survey of California Physicians, 2001

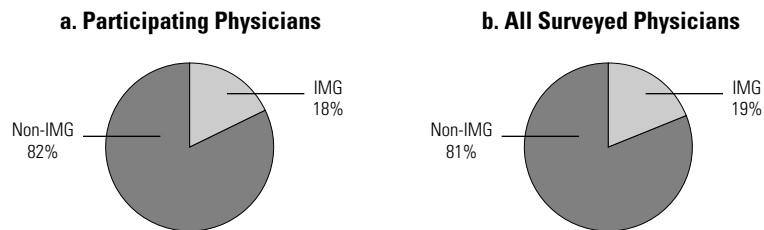
**Figure 35. Urban Physician Race/Ethnicity, 2001**



Source: UCSF Survey of California Physicians, 2001

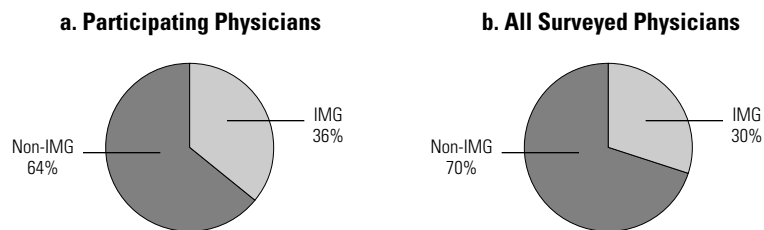
The percentage of Medi-Cal physicians in rural areas who are international medical graduates (IMGs) (18 percent) is roughly in line with the percentage of all surveyed physicians in rural regions that are IMGs (19 percent) (Figure 36). However, IMGs in urban areas appear more likely than U.S. medical graduates to participate in Medi-Cal. Some 36 percent of Medi-Cal physicians in urban areas are IMGs, compared to 30 percent of all surveyed physicians (Figure 37). Many IMGs make use of J1 visa waiver programs to remain in the United States to prac-

**Figure 36. Rural Physician IMG Status, 2001**



Source: UCSF Survey of California Physicians, 2001

**Figure 37. Urban Physician IMG Status, 2001**



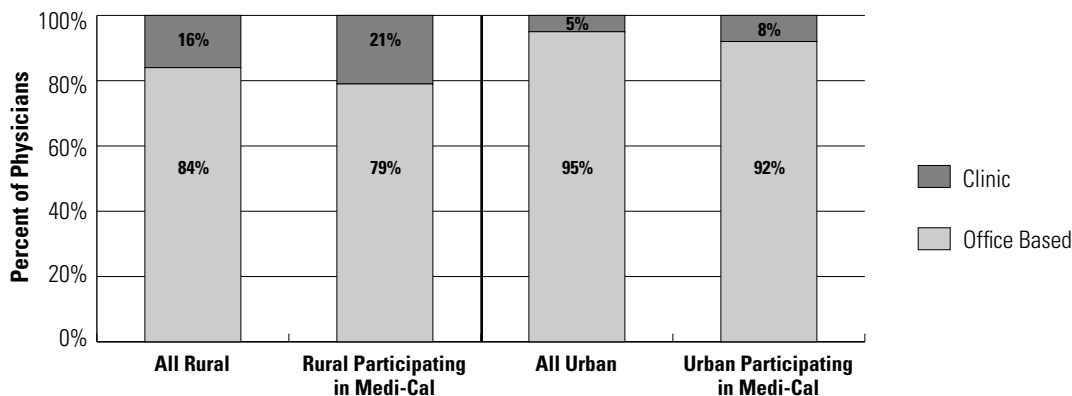
Source: UCSF Survey of California Physicians, 2001



tice after completing their residency training. These visa waiver programs require that IMGs find an underserved community to sponsor their practice placements. Our findings suggest that rural communities are not particularly dependent on IMGs to serve Medi-Cal patients.

Rural primary care physicians are more likely than their urban counterparts to work in community health centers or similar types of clinics. Some 21 percent of rural primary care physicians participating in Medi-Cal work in clinics, compared with only 8 percent of urban participating primary care physicians (Figure 38).

**Figure 38. Practice Setting of Primary Care Physicians, 2001**



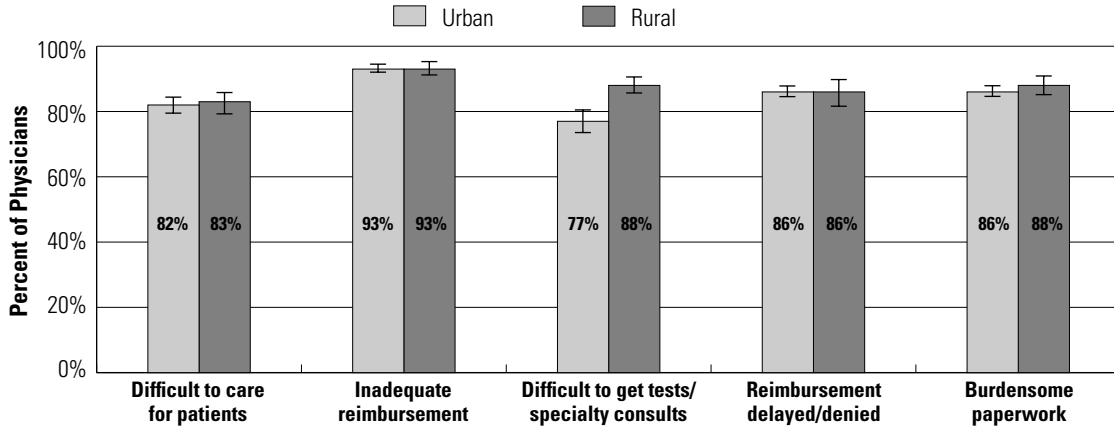
Source: UCSF Survey of California Physicians, 2001

## Perceptions of Medi-Cal

The greater likelihood of rural physicians participating in Medi-Cal does not mean that rural physicians have more positive perceptions than urban physicians of the Medi-Cal program. On questions related to reimbursement, paperwork, caring for patients, and getting tests and specialty consults, rural physicians reported perceptions that were as negative if not somewhat more negative than their urban counterparts (Figures 39, 40, and 41).

This finding raises the obvious question of why rural physicians are much more likely to care for Medi-Cal patients than are urban physicians. The 2001 survey does not provide direct answers to this question, but it does raise several possible factors that may explain this phenomenon. First, community health centers are a much more common practice setting for rural physicians than for urban physicians. In many rural areas, federally funded rural health clinics provide the critical practice infrastructure for physicians and other clinicians that serve a diverse patient population, including privately insured patients and Medicare beneficiaries, in addition to Medi-Cal beneficiaries and the uninsured. Compared with private physician offices, federally funded or federally qualified health centers command higher Medi-Cal payments under “cost-based” reimbursement policies, making Medi-Cal participation more economically attractive to these sites.

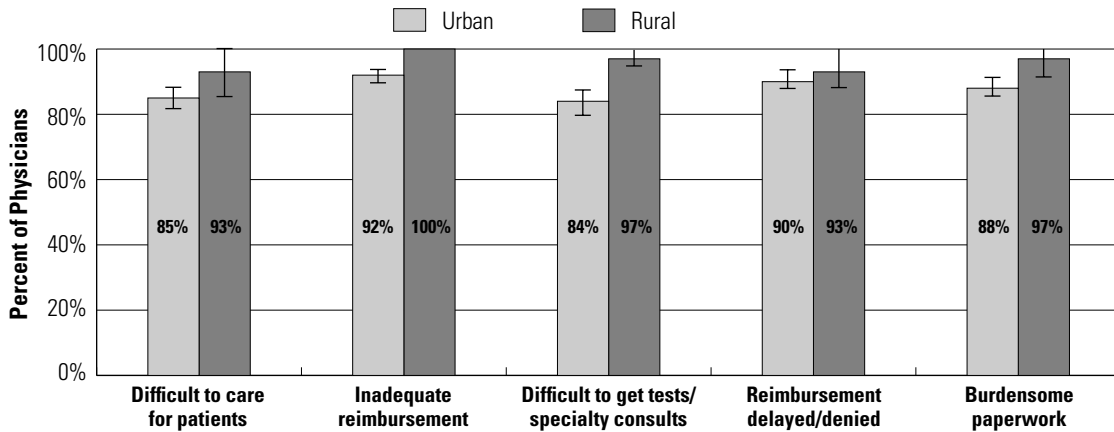
**Figure 39. Primary Care Physicians' Perceptions about Medi-Cal, 2001**



Source: UCSF Survey of California Physicians, 2001

Note: — represents 95 percent confidence interval.

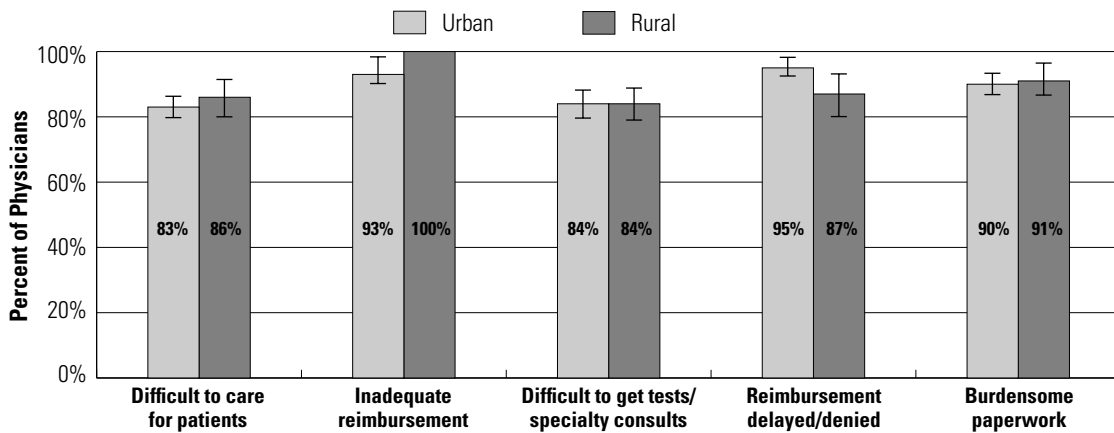
**Figure 40. Medical Specialists' Perceptions about Medi-Cal, 2001**



Source: UCSF Survey of California Physicians, 2001

Note: — represents 95 percent confidence interval.

**Figure 41. Surgical Specialists' Perceptions about Medi-Cal, 2001**



Source: UCSF Survey of California Physicians, 2001

Note: — represents 95 percent confidence interval.

Second, the lower overall supply of physicians in most specialties in rural areas compared to urban areas, and the greater distances between medical offices and clinics in rural regions, may motivate rural physicians to participate in Medi-Cal. Physicians in rural communities may feel a greater obligation to care for Medi-Cal patients when they perceive that Medi-Cal beneficiaries have fewer available local alternatives for care. Finally, the fact that rural physicians are more likely to have Medi-Cal patients in their practice but, in many specialties, are not more likely than urban physicians to accept new Medi-Cal patients suggests that rural physicians may have more stable patient populations than do urban physicians. Physicians in sparsely populated communities may have long-term patient-physician relationships with Medi-Cal beneficiaries and thus have relatively high numbers of Medi-Cal patients in their practice even when no longer accepting new Medi-Cal patients.

## V. Discussion

A key element of the Medi-Cal program is the availability of physicians who are willing to care for Medi-Cal beneficiaries. Only about half of California physicians participate in Medi-Cal, and many of those have negative perceptions about the Medi-Cal program. This rate of physician participation is substantially lower than Medicaid physician participation rates in other parts of the country during a similar time period, and it contributes to Medi-Cal physician workforce shortages in both urban and rural California. A recent report of a 2001 national survey of physicians found that 85.4 percent were serving Medicaid patients.<sup>18</sup> This 2001 result represented a small decline from the 87.1 percent physician participation rate in 1997, but it is still dramatically higher than that found in California.

During the 1990s, California expanded Medi-Cal managed care and increased physician fees in the Medi-Cal program in an attempt to increase physician participation in the program. Based on the results of surveys conducted over time among random samples of California physicians, these strategies do not appear to be associated with an increase in physician participation in Medi-Cal. Physicians' persistently negative opinions about Medi-Cal payment rates and increasingly negative opinions about Medi-Cal managed care over time suggest that these issues contribute to their low level of participation. However, since these policies were not introduced in an experimental fashion, we cannot say with complete certainty whether physician participation rates might have declined even more significantly in the absence of these policy changes.

Although their overall participation in Medi-Cal was similar, primary care physicians had a greater percentage of Medi-Cal patients in their practice than specialists, and were more likely to participate in Medi-Cal managed care. This may reflect differences in the kinds of Medi-Cal patients for whom each group of physicians cares as well as differences in their views of Medi-Cal managed care. Although the survey did not probe this directly, we suspect that specialists were more likely than primary care physicians to have Medi-Cal patients who were also cov-

ered by Medicare in their practice. For example, orthopedists and ophthalmologists care for a disproportionately older patient population. Since Medi-Cal managed care was predominantly targeted on programs that affect women and children, it is not entirely surprising that specialists were less involved in this change than primary care physicians.

Primary care physicians initially expressed more enthusiasm than specialists for Medi-Cal managed care. In 1996, a majority of primary care physicians believed that Medi-Cal managed care was going to improve the care they could offer Medi-Cal patients and the payments they would receive for doing so. However, by 2001, despite their varying degrees of experience with Medi-Cal managed care, both primary care and specialist physicians reported that they were less likely to take care of Medi-Cal beneficiaries because of Medi-Cal managed care.

The other strategy used to increase physicians' participation in Medi-Cal was to increase physician payments. Although there was a Medi-Cal physician fee increase in 2000, the size of the increase only moved California from 46th to 42nd among states after adjusting for cost of living differences.<sup>19</sup> Most physicians surveyed in the 18 months following this physician fee hike in Medi-Cal reported that Medi-Cal payments were too low and that they were not aware of any recent payment changes. The lack of an increase in physician participation in the Medi-Cal program in association with the increase in Medi-Cal physician fees suggests that this was either not the key issue that determined whether physicians participated, or that the size of the payment increase was not sufficient to gain the attention and interest of a large number of physicians. Given how negatively physicians rated Medi-Cal reimbursement, we suspect that the latter explanation is paramount.

Although the supply of physicians in general is more limited for individuals living in rural areas as compared to urban areas, the greater willingness of rural physicians to care for Medi-Cal patients makes the availability of Medi-Cal physicians similar for Medi-Cal beneficiaries in urban and rural areas. Similarities in the supply of physicians for Medi-Cal beneficiaries should not be interpreted as meaning that these patients have the same degree of access to care, as the survey did not measure other potentially important barriers such as how far an individual needs to travel for care.

The higher rates of physician participation in rural communities may hold lessons for overall policies to address physician participation in the Medi-Cal program. The structure of physician practice in rural communities, with a more central role for community health centers, may in part explain why rural physicians are more likely to care for Medi-Cal patients. Further gains in physician participation in Medi-Cal in urban areas may be limited by the traditional private practice office structure that predominates in urban areas. The organized group practice structure of clinics, as well as access to cost-based reimbursement, may be a necessary element in enhancing physician involvement in Medi-Cal. Differences in the overall social context of rural and urban areas may be another key factor explaining greater physician participation in Medi-Cal in rural communities. Physicians in rural areas, particularly those areas with few physicians in practice, may feel a greater obligation to respond to community needs.

Urban areas often lack some of the social cohesiveness and familiarity that may enhance physician involvement in Medi-Cal in rural communities.

California's budget crisis is likely to result in reduced funding for the Medi-Cal program in the near future. Although there has been little evidence to suggest that the administrative cost investment in Medi-Cal managed care results in substantial cost savings, California like other states is unlikely to view the current fiscal crisis as a reason to retreat from this approach. Around the country, most states believe that Medicaid managed care provides them with greater cost and performance accountability.<sup>20</sup> Instead, current proposals to decrease the cost of the Medi-Cal program are focused on decreasing the pool of individuals eligible for coverage, decreasing covered benefits, decreasing the length of enrollment with more frequent eligibility determinations, and decreasing payments to providers.

Based on the concerns physicians expressed in this study, reductions in physician payments along with the increased administrative work that will be required of medical practices to determine whether a patient is eligible and enrolled in Medi-Cal will probably contribute to further erosion of physicians' willingness to participate in caring for Medi-Cal patients. These changes will most likely accelerate "reverse mainstreaming" of Medi-Cal patients from private physicians' offices to safety net providers such as community health centers and county clinics.

Policymakers in California face the following three broad options for addressing low levels of physician participation in Medi-Cal:

1. *Increase—or, at a minimum, maintain—the participation of physicians in Medi-Cal by increasing payment rates and/or reducing the cost of doing business with Medi-Cal.* It will be costly to lure more physicians into the Medi-Cal program. California would need to make a substantial investment in physician fees just to raise them to a level that is comparable to the average of other states' Medicaid physician payment rates, let alone to the level of Medicare and California commercial rates. Nevertheless, there are potentially several options to cover the cost of raising physician payment levels, each with its own drawbacks. One option is to increase general fund revenues dedicated to the Medi-Cal program. A second option is to reallocate funds that are already earmarked for Medi-Cal. Compared to other states, California has traditionally chosen to offer relatively generous Medi-Cal eligibility guidelines and benefits in lieu of bolstering physician payment rates. In reality, however, the state is very unlikely to increase Medi-Cal physician fees in the current political and economic environment. Few politicians are likely to be willing to support fee increases for physicians at a time when cuts in Medi-Cal eligibility and benefits are occurring.

An alternative but as yet untested method for raising funds to increase Medi-Cal physician fees that would not require additional general fund revenues would be to spread the burden of low Medi-Cal physician payment rates across

all physicians by supplementing Medi-Cal payments with revenues from a tax on physician services. In this option, the state would levy a small tax on physician payments from all sources in the state, and these funds would be earmarked for the Medi-Cal program to increase Medi-Cal physician fees. Physicians with a high concentration of Medi-Cal patients would experience a net gain in income; those who had few or no Medi-Cal patients would experience a net loss in income. This is similar to the strategy applied in some states, such as Massachusetts, for creating a pool of funds to cover uncompensated hospital care. However, we are not aware of any states currently using this approach to cover ambulatory Medicaid costs, and there may be major barriers to adopting this approach. This strategy would undoubtedly face major political opposition, but it might offer a mechanism for increasing Medi-Cal physician fees and Medi-Cal physician participation without adding to the public's tax burden.

The state could also consider nonfinancial Medi-Cal reforms that would not necessarily have adverse budgetary impacts as a way to make Medi-Cal more "physician friendly" in its administration. Examples might include simplifying claims submission and processing procedures, reducing payment delays, and allowing presumptive eligibility determinations at provider sites. However, there is no evidence to suggest that modest changes of these types would lead to meaningfully greater physician participation in Medi-Cal.

2. *Expand the pool of providers by creating new opportunities for nonphysician clinicians to serve Medi-Cal beneficiaries.* Rather than try to increase physician participation, an alternative approach is to expand the role of nonphysician clinicians. This approach could preserve resources for other Medi-Cal policy goals and represent a more realistic assessment of Medi-Cal's status in the current policy environment. It is possible that many more nonphysician clinicians capable of delivering services traditionally provided by physicians would be willing to participate in Medi-Cal at current physician payment rates, if Medi-Cal allowed more opportunities for these nonphysician clinicians to function as autonomous providers and to bill Medi-Cal directly for services. Even though Medi-Cal regulations already provide some opportunities for nonphysician clinicians to bill Medi-Cal directly, many regulatory barriers (such as limitations on pharmaceutical prescribing) restrict nonphysician clinician participation in the program as autonomous providers. Changes in state regulations regarding nonphysician clinicians' scope of practice tailored to participation in Medi-Cal might enhance Medi-Cal beneficiaries' access to care. However, the potential benefits for access to care of reducing such regulatory barriers must be weighed against concerns about whether these changes would adversely affect the quality of care for Medi-Cal beneficiaries.

3. *Abandon the strategy of a stand-alone insurance program for the poor and replace Medi-Cal with a “mainstream” health insurance plan that covers Californians of all income levels.* The most far-reaching version of this approach would be a universal “single payer” system in which Medi-Cal would no longer remain a distinct program. One payment standard would apply for all Californians enrolled in the plan. A recent independent economic analysis performed for the California Health Care Options Project indicated that the administrative cost savings from a single payer approach might offset the additional cost of providing universal coverage.<sup>21</sup> This approach would involve far-reaching changes not only in Medi-Cal, but also in the state’s entire health care system, with many hurdles to enactment. However, the growing sense of a health care system crisis across the health insurance spectrum in California may provide an opportunity for fundamental restructuring of Medi-Cal and other health insurance plans. At least one single payer bill will be considered by the California legislature in 2003.

In summary, the supply of physicians caring for Medi-Cal patients is below federal workforce standards and physicians’ participation in Medi-Cal appears to be slowly declining over time. In view of how negatively physicians regard Medi-Cal, it is perhaps remarkable that the availability of physicians in the program is not even worse. The state’s current budgetary constraints will force policymakers to confront the priorities of the Medi-Cal program, to question the policy objectives for physician participation in Medi-Cal, and to consider more far-reaching reforms in Medi-Cal and the state’s health care system.





# Appendix: Survey Instrument

## California Physician Survey Questions\*

\* These are a subset of questions derived from the 2001 survey of California physicians that were analyzed to generate the report.

1. a) What is the zip code at your main practice? \_\_\_\_\_  
 b) In what county is your main practice located? \_\_\_\_\_
  
2. What is your main practice setting?
  - <sub>1</sub> Solo practice
  - <sub>2</sub> Single specialty partnership or group practice
  - <sub>3</sub> Multispecialty partnership or group practice
  - <sub>4</sub> Kaiser-Permanente
  - <sub>5</sub> A staff or group model HMO other than Kaiser
  - <sub>6</sub> Community health center or public clinic
  - <sub>7</sub> Other (Please specify):
  
3. In your main practice, how many physicians, including yourself, are in the practice?
  - <sub>1</sub> One physician
  - <sub>2</sub> 2 to 10 physicians
  - <sub>3</sub> 11 to 50 physicians
  - <sub>4</sub> 51 to 100 physicians
  - <sub>5</sub> More than 100 physicians
  
4. How many patient visits do you have in a typical week (include visits in all settings)?  
 \_\_\_\_\_ visits
  
5. If a patient with limited English skills comes to your office for care, which of the following communication methods would be used.

**Please respond for each language and check all that apply for each language.**

	Spanish	Chinese	Vietnamese	Russian
I speak language fluently .....	<input type="checkbox"/> <sub>1</sub> .....	<input type="checkbox"/> <sub>2</sub> .....	<input type="checkbox"/> <sub>3</sub> .....	<input type="checkbox"/> <sub>4</sub>
Office staff fluent/ translates.....	<input type="checkbox"/> <sub>1</sub> .....	<input type="checkbox"/> <sub>2</sub> .....	<input type="checkbox"/> <sub>3</sub> .....	<input type="checkbox"/> <sub>4</sub>
Staff would arrange telephone translator.....	<input type="checkbox"/> <sub>1</sub> .....	<input type="checkbox"/> <sub>2</sub> .....	<input type="checkbox"/> <sub>3</sub> .....	<input type="checkbox"/> <sub>4</sub>

Staff would arrange telephone

translator.....  1.....  2.....  3.....  4

Patient would provide

own translator.....  1.....  2.....  3.....  4

6. In your main practice, please estimate the percentage of patients in each of the specified insurance categories.

**Consider categories mutually exclusive. Total should equal 100%.**

- a.) Fee-for-service private or commercial insurance (include discounted fee-for-service) \_\_\_\_\_%
  - b.) Capitated/ HMO commercial or private insurance \_\_\_\_\_%
  - c.) Fee-for-service Medicare \_\_\_\_\_%
  - d.) Capitated/HMO Medicare \_\_\_\_\_%
  - e.) Fee-for-service Medi-Cal \_\_\_\_\_%
  - f.) Capitated/HMO Medi-Cal \_\_\_\_\_%
  - g.) Healthy Families \_\_\_\_\_%
  - h.) Worker's Compensation \_\_\_\_\_%
  - i.) Uninsured, **unable** to pay full fee \_\_\_\_\_%
  - j.) Uninsured, **able** to pay full fee \_\_\_\_\_%
  - k.) Other insurance \_\_\_\_\_%
- TOTAL 100%

7. Are you currently accepting any new **Medi-Cal** patients in your main practice?

- 1 Yes, accepting both fee-for-service and capitated/HMO Medi-Cal patients
- 2 Yes, accepting only fee-for-service but not capitated/HMO Medi-Cal patients
- 3 Yes, accepting only capitated/HMO Medi-Cal but not fee-for-service Medi-Cal patients
- 4 No, currently not accepting new Medi-Cal patients

8. Are you currently accepting any new **uninsured** patients who are unable to pay the full fees for services in your practice?

- 1 Yes
- 2 No

9. Are you currently accepting any new patients with **commercial HMO insurance** in your practice?

- 1 Yes
- 2 No

10. Are you currently accepting **any** new patients in your main practice?

- 1 Yes
- 2 No

11. Please indicate your level of agreement with the following statements about the Medi-Cal program.

- |  | Strongly Agree             | Somewhat Agree             | Somewhat Disagree          | Strongly Disagree          |
|--|----------------------------|----------------------------|----------------------------|----------------------------|
| a) Overall, the Medi-Cal program makes it difficult to care for patients ..... | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 |

- b) Medi-Cal provides inadequate reimbursement..... <sub>1</sub>..... <sub>2</sub>..... <sub>3</sub>..... <sub>4</sub>
- c) It is difficult to obtain tests or specialty consults  
for Medi-Cal patients ..... <sub>1</sub>..... <sub>2</sub>..... <sub>3</sub>..... <sub>4</sub>
- d) Medi-Cal reimbursement is frequently  
delayed or denied..... <sub>1</sub>..... <sub>2</sub>..... <sub>3</sub>..... <sub>4</sub>
- e) Burdensome paperwork makes it difficult to  
care for Medi-Cal patients..... <sub>1</sub>..... <sub>2</sub>..... <sub>3</sub>..... <sub>4</sub>

12. In the past 18 months, how have your Medi-Cal payment rates changed?

- |                                       |                                       |                                       |                                       |
|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| Increased                             | No change                             | Decreased                             | Don't know                            |
| <input type="checkbox"/> <sub>1</sub> | <input type="checkbox"/> <sub>2</sub> | <input type="checkbox"/> <sub>3</sub> | <input type="checkbox"/> <sub>4</sub> |

13. In your opinion, how is managed care changing the Medi-Cal program?

- |  |                   |                   |                      |                      |
|--|-------------------|-------------------|----------------------|----------------------|
|  | Strongly<br>Agree | Somewhat<br>Agree | Somewhat<br>Disagree | Strongly<br>Disagree |
|--|-------------------|-------------------|----------------------|----------------------|
- a) Overall, managed care is improving  
the Medi-Cal program .. <sub>1</sub>..... <sub>2</sub>..... <sub>3</sub>..... <sub>4</sub>
- b) Managed care is increasing the reimbursement  
I can receive from caring for Medi-Cal patients ..... <sub>1</sub>..... <sub>2</sub>..... <sub>3</sub>..... <sub>4</sub>
- c) Medi-Cal managed care is increasing the  
hassles associated with caring for Medi-Cal patients .. <sub>1</sub>..... <sub>2</sub>..... <sub>3</sub>..... <sub>4</sub>
- d) Managed care is decreasing delayed or denied  
Medi-Cal payments..... <sub>1</sub>..... <sub>2</sub>..... <sub>3</sub>..... <sub>4</sub>
- e) Managed care is making it easier to obtain tests  
and specialty consults for Medi-Cal patients..... <sub>1</sub>..... <sub>2</sub>..... <sub>3</sub>..... <sub>4</sub>
- f) The number of Medi-Cal patients I care for  
is increasing as a result of the introduction of  
Medi-Cal managed care..... <sub>1</sub>..... <sub>2</sub>..... <sub>3</sub>..... <sub>4</sub>

14. What is your sex?

- <sub>1</sub> Male      <sub>2</sub> Female

15. How old are you? \_\_\_\_\_

16. To which group do you consider yourself to belong?

- |   |  |
|---|--|
| <input type="checkbox"/> <sub>1</sub> Asian American, Asian   | <input type="checkbox"/> <sub>5</sub> Pacific Islander                   |
| <input type="checkbox"/> <sub>2</sub> African American, Black | <input type="checkbox"/> <sub>6</sub> Caucasian, non-Hispanic White      |
| <input type="checkbox"/> <sub>3</sub> Hispanic, Latino        | <input type="checkbox"/> <sub>7</sub> Multiethnic (please specify) _____ |
| <input type="checkbox"/> <sub>4</sub> Native American         | <input type="checkbox"/> <sub>8</sub> Other (please specify) _____       |

17. What is your specialty? (Check all that apply)

- |  |  |   |
|--|--|---|
| <input type="checkbox"/> <sub>1</sub> Cardiology       | <input type="checkbox"/> <sub>6</sub> General Practice       | <input type="checkbox"/> <sub>11</sub> Ophthalmology      |
| <input type="checkbox"/> <sub>2</sub> Dermatology      | <input type="checkbox"/> <sub>7</sub> General Surgery        | <input type="checkbox"/> <sub>10</sub> Orthopedic Surgery |
| <input type="checkbox"/> <sub>3</sub> Endocrinology    | <input type="checkbox"/> <sub>8</sub> Internal Medicine      | <input type="checkbox"/> <sub>11</sub> Otolaryngology     |
| <input type="checkbox"/> <sub>4</sub> Family Practice  | <input type="checkbox"/> <sub>9</sub> Neurology              | <input type="checkbox"/> <sub>12</sub> Pediatrics         |
| <input type="checkbox"/> <sub>5</sub> Gastroenterology | <input type="checkbox"/> <sub>10</sub> Obstetrics-Gynecology | <input type="checkbox"/> <sub>13</sub> Other _____        |

18. Which of the following categories best describes your total 2000 net income after practice expenses but before taxes?

- |  |   |   |
|--|---|---|
| <input type="checkbox"/> <sub>1</sub> \$60,000 or less       | <input type="checkbox"/> <sub>6</sub> \$140,001 to \$160,000  | <input type="checkbox"/> <sub>11</sub> \$300,001 to \$350,000 |
| <input type="checkbox"/> <sub>2</sub> \$60,001 to \$80,000   | <input type="checkbox"/> <sub>7</sub> \$160,001 to \$180,000  | <input type="checkbox"/> <sub>12</sub> \$350,001 to \$400,000 |
| <input type="checkbox"/> <sub>3</sub> \$80,001 to \$100,000  | <input type="checkbox"/> <sub>8</sub> \$180,001 to \$200,000  | <input type="checkbox"/> <sub>13</sub> \$400,001 to \$450,000 |
| <input type="checkbox"/> <sub>4</sub> \$100,001 to \$120,000 | <input type="checkbox"/> <sub>9</sub> \$200,001 to \$250,000  | <input type="checkbox"/> <sub>14</sub> \$450,001 to \$500,000 |
| <input type="checkbox"/> <sub>5</sub> \$120,001 to \$140,000 | <input type="checkbox"/> <sub>10</sub> \$250,001 to \$300,000 | <input type="checkbox"/> <sub>15</sub> Greater than \$500,000 |

# Notes

1. Bindman A.B., Huen W., Vranizan K., Yoon J., Grumbach K., and Streett L. *Physician Participation in Medi-Cal, 1996-1998*. Medi-Cal Policy Institute. Oakland, CA: February 2002.
2. Kaiser Family Foundation. State Health Facts Online. (<http://www.statehealthfacts.kff.org>)
3. California Department of Finance. *State Budget Highlights, 2000-2001*. Sacramento, CA: 2001.
4. Medi-Cal Policy Institute. *Speaking Out: What Beneficiaries Say About the Medi-Cal Program*. Oakland, CA: March 2000.
5. Bindman A.B., Huen W., Vranizan K., Yoon J., Grumbach K., and Streett L. *Physician Participation in Medi-Cal, 1996-1998*. Medi-Cal Policy Institute. Oakland, CA: February 2002.
6. California Department of Health Service. Medi-Cal Statistics Section 2000. *Medi-Cal Beneficiaries by Managed Care Plan (historical). Vol. 2000*. (<http://www.dhs.ca.gov/MCSS/RequestedData/HCPXmonth/HCPXmonth.htm>)
7. Menges J., Park C., Babcock J., Chimento L., Haught R., and Ho S. *Comparing Physician and Dentist Fees Among Medicaid Programs*. Medi-Cal Policy Institute. Oakland, CA: June 2001.
8. Perloff J.D., Kletke P., and Fossett J.W. "Which physicians limit their Medicaid participation, and why?" *Health Serv Res* 1995; 30(1): 7-26.
9. Margolis P.A., Cook R.L., Earp J.A., Lannon C.M., Keyes L.L., and Klein J.D. "Factors associated with pediatricians' participation in Medicaid in North Carolina." *JAMA* 1992; 267(14):1942-6.
10. Bindman A.B., Huen W., Vranizan K., Yoon J., Grumbach K., and Streett L. *Physician Participation in Medi-Cal, 1996-1998*. Medi-Cal Policy Institute. Oakland, CA: February 2002.
11. Backus L., Osmond D., Grumbach K., et al. "Specialists' and primary care physicians' participation in Medicaid managed care." *J Gen Intern Med* 2001; 16(12): 815-21.
12. Freyer G.E., Stine C., Vojir C., et al. "Predictors and profiles of rural versus urban family practice." *Fam Med* 1997; 29(2): 115-8.
13. Frenzen P.D. "Proposals to slow growth of federal spending." *Rural Conditions and Trends*, Vol 7, No 2. (<http://www.ers.usda.gov/publications/rcat/rcat72/rcat72h.pdf>)
14. California Department of Health Service. Medi-Cal Statistics Section 2000. *Medi-Cal Beneficiaries by Managed Care Plan (historical). Vol. 2000*. (<http://www.dhs.ca.gov/MCSS/RequestedData/HCPXmonth/HCPXmonth.htm>)
15. California Department of Finance. *County Population Projections with Age, Sex, and Race/Ethnic Detail*. Sacramento, CA: 1998. ([http://www.dof.ca.gov/html/Demograp/Proj\\_age.htm](http://www.dof.ca.gov/html/Demograp/Proj_age.htm))
16. Health Resources and Services Administration. Area Resource File. 2000.

17. California Office of Statewide Health Planning and Development. *California Health Manpower Policy Commission, Medical Service Study Area Boundaries as of 2001*.
18. Cunningham P. *Mounting Pressures: Physicians Serving Medicaid Patients and the Uninsured, 1997-2001. Tracking Report 6*. Center for Studying Health System Change. December 2002.
19. Menges J., Park C., Babcock J., Chimento L., Haught R., and Ho S. *Comparing Physician and Dentist Fees Among Medicaid Programs*. Medi-Cal Policy Institute. Oakland, CA: June 2001.
20. Hurley R.E., Somers S.A. "Medicaid and Managed Care: A Lasting Relationship?" *Health Affairs* 2003; 22(1):77-88.
21. Menges J., Park C., Babcock J., Chimento L., Haught R., and Ho S. *Comparing Physician and Dentist Fees Among Medicaid Programs*. Medi-Cal Policy Institute. Oakland, CA: June 2001.



CALIFORNIA  
HEALTHCARE  
FOUNDATION

**Medi-Cal** *Policy Institute*

476 Ninth Street  
Oakland, CA 94607  
tel: 510/286-8976  
fax: 510/238-1382  
[www.medi-cal.org](http://www.medi-cal.org)

A project of the  
CALIFORNIA HEALTHCARE FOUNDATION