Racial and Ethnic Disparities in Health Care for Adolescents

A Systematic Review of the Literature

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Objective: To identify the extent of racial and ethnic disparities in primary care, mental health care, reproductive health care, and asthma care for adolescents independent of socioeconomic status (SES).

Data Sources: Systematic review of the scientific literature using standard bibliographic databases.

Study Selection: Inclusion criteria were (1) studies published in the past 12 years, (2) analyses included children and adolescents aged 17 years and younger, and (3) data analyzed by racial/ethnic groups while accounting for SES. A total of 203 studies were reviewed, of which 31 met the criteria for inclusion: 14 of 65 studies on primary care, 11 of 61 studies on mental health care, 2 of 50 studies on reproductive health, and 4 of 27 studies on asthma services.

Data Extraction: Data from tables in the selected studies were used to determine whether minority children and adolescents received fewer, greater, or the same health care services as white children and youth after taking into account SES.

Data Synthesis: Black youth received fewer primary care services in 8 studies, whereas in 4 studies no disparity was noted. Hispanic youth received fewer primary care services in 6 studies, whereas no disparity was noted in 5. One study did not include Hispanic subjects. In 2 studies minority youth, combined into a single category, received fewer services than did white youth. In a total of 6 studies black youth received fewer mental health services, whereas in 3 studies no disparity was noted and in 1 study black youth received a greater number of services. In 3 studies Hispanic youth received fewer mental health services, and in 3 studies there were no group differences. In 1 study, with racial and ethnic groups combined in a single category, minority children and youth received fewer mental health services than white subjects. Three studies did not include Hispanic subjects. Too few studies of reproductive and asthma care were available to draw conclusions.

Conclusions: These results suggest that racial and ethnic disparities, independent of SES, exist in selected areas of adolescent health care. More studies are needed to better understand the extent and causes of these findings.

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For editorial comment see page 850

Scattered across the medical disciplines, there are published reports on differences among adolescents in the prevalence of risk factors and diseases according
to health insurance status, SES, and utilization of health services.²⁹ Few reports, however, include analyses that identify the interactive effects of race and ethnicity, SES, and health insurance status on health-related factors or services. Thus, to extend the work begun by the IOM to the adolescent population, a systematic review was conducted to better understand the role that race and ethnicity, independent of SES and access to care, have on medical services for adolescents.

METHODS

Comprehensive literature searches identified scientific articles on adolescents’ utilization of primary care and ambulatory health care services for 3 diseases and conditions: mental health, reproductive health, and asthma. These 4 types of services were chosen because they constitute common reasons for adolescents to seek health care and because they represent a range of issues, from traditional medical problems (ie, asthma) to behavioral issues (ie, reproductive health), emotional issues, and routine care. In addition, key informant interviews were conducted with experts in health services research, adolescent health, and the 3 thematic areas relevant to the current study. Experts identified unpublished studies or confirmed that there was a lack of data for a particular area. Reference lists of articles reviewed were also used to identify additional sources of data. The standard scientific search engines MEDLINE, ERIC, Psych Info, and PubMed were used to identify published articles in each of the areas of interest. Various combinations of keywords (eg, racial and ethnic disparities, health care services, reproductive health, family planning, Pap test, HIV, STD [sexually transmitted disease], prenatal care, asthma, mental health services, depression, attention deficit disorder, and adolescents) were used to maximize the results. The following criteria were used to select articles for review: (1) used data from the national, regional, state, or school district level, (2) analyzed data on children and adolescents aged 17 years and younger, (3) analyzed subjects by racial/ethnic groups, and (4) controlled in the analysis for health insurance status or accounted for SES by either using a homogeneous sample (eg, Medicaid population or Job Corps students) or by controlling for parental income and/or education. Finally, to ensure that data were relatively recent, the final search criteria was that articles must have been published no earlier than 1990.

Sex was not included as a factor in the systematic review because it was used only variably in the identified studies. Because relatively few study populations included sizable numbers of minority subjects other than African Americans and Hispanics, only results from these 2 minority groups are presented. The pertinent data from each study were organized in a 2 x 3 table (not shown) according to racial and ethnic groups (ie, African American and Hispanic) and results (ie, minority group received fewer health care services than non-Hispanic white youth, minority group received equal services, or minority group received greater services). Lastly, a distinction was made as to whether the sample included just youth aged 12 to 17 years (“teenagers”) or all children and youth.

A research assistant (J.J.) conducted the literature searches, identified articles that met the inclusion criteria, extracted the relevant data, and created the summary tables. The senior author (A.E.) reviewed all articles from which data were used in the analysis and validated the accuracy of the information in the tables.

RESULTS

A total of 203 studies were identified, of which 31 met the criteria for inclusion in the analysis and were reviewed. Of the studies reviewed, 16 included analyses of data on adolescents who were of either middle- or high-school age, and the remainder did not distinguish children from adolescents. In 3 studies researchers combined data from all minority groups. No study focused exclusively on health disparities. Rather, the focus of these studies was utilization of either primary care or health care services for 1 of the 3 areas of interest.

PRIMARY HEALTH CARE

A total of 65 articles were reviewed, of which 14 met the criteria for inclusion in the analysis (Table 1).²⁴⁻²⁹ Each of these studies reported on at least 1 conceptually related aspect of primary care, including having a “well” or health care visit, frequency of health care visits, and having had a usual source of care other than the emergency department.

Six studies included data from only adolescent subjects.¹⁰⁻¹² In 3 studies African American (black) adolescents received fewer primary care services during the preceding year than non-Hispanic white adolescents,¹⁰⁻¹²,¹³ whereas in 3 studies they received equal care.¹¹,¹⁴,¹⁵ Including the additional 6 studies of all subjects younger than 18 years increased the number of studies that found that black subjects received less primary care than white subjects by 5 to a total of 8.¹⁷⁻²⁰,²² The number of studies that found no disparity in primary care between white and black subjects increased by 1 study¹⁶ to a total of 4. Hispanic youth received fewer primary care services than did white youth in 3 studies¹⁰⁻¹²,¹⁵ and equal services in 3 studies.¹¹,¹³,¹⁴ When articles that included both children and adolescents were added, the number of studies that found that Hispanic subjects received fewer services increased by 3 studies¹⁷,¹⁸,²² to a total of 6, whereas the number indicating equal primary care services increased by 2 studies¹⁶,²² to a total of 5. There were no studies in which either black or Hispanic subjects received more primary care than white subjects.

Researchers did not distinguish among minority groups in 2 studies. In each, nonwhite children younger than 18 years were less likely than white children to have had a usual or regular source of medical care.²¹,²³ The studies on primary care were mostly strong methodologically. All but 2 of 14 studies used national data,¹⁵,¹⁸ and all but 6 controlled in the analysis for service need.¹³,¹⁵,¹⁷,¹⁹,²¹,²² Levels of significance could not be determined from 1 study.¹² Of the remaining 7 studies, disparities in primary care were found in 4,¹⁰,¹⁸,²⁰,²³

MENTAL HEALTH CARE SERVICES

A total of 60 articles were reviewed, of which 11 met our criteria for inclusion in the analysis (Table 2).²⁴,²⁵ Six studies reported on mental health care service utilization among white and black adolescents. In 3 of these studies, black adolescents received fewer mental health care services than did white adolescents,²⁸,²⁹,³⁰ whereas no racial group differences were noted in 2 studies²⁵,²⁸ and in 1 study black youth received more services than did white youth.²⁹ When the 4 additional studies that included subjects 17 years and younger were included, the
Table 1. Studies on Primary Care

<table>
<thead>
<tr>
<th>Source</th>
<th>Data Source</th>
<th>No.</th>
<th>Race/Ethnicity, White/Black/Hispanic, %</th>
<th>Age Range</th>
<th>Independent Variables</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bartman et al.,13 1997</td>
<td>1987 NMES</td>
<td>3102</td>
<td>74/16/10</td>
<td>11-17 y</td>
<td>Sex, race, geographic and urban residence, ethnicity, parent-reported health status, usual source of care, insurance status, and income</td>
<td>Black (AOR, 0.53; 95% CI, 0.42-0.67) and Hispanic (AOR, 0.58; 95% CI, 0.45-0.74) youth were significantly less likely than white youth to visit a physician’s office, ED, or outpatient clinic during the past year.</td>
</tr>
<tr>
<td>Ford et al.,11 1999</td>
<td>1995 National Longitudinal Study of Adolescent Health, Wave 1</td>
<td>20 746</td>
<td>65/15/12</td>
<td>7th-12th grade</td>
<td>Age, sex, race/ethnicity, SES, vocabulary score, family composition, insurance status, health risk behaviors, and symptoms</td>
<td>Neither black males (AOR, 1.02; 95% CI, 0.95-1.07) or females (AOR, 1.05; 95% CI, 0.98-1.11) or Hispanic males (AOR, 0.98; 95% CI, 0.90-1.05) or females (AOR, 0.97; 95% CI, 0.87-1.06) were less likely than white youth to have had a physical examination in the past year.</td>
</tr>
<tr>
<td>Lieu et al.,32 1993</td>
<td>1988 NHIS, CHS</td>
<td>7465</td>
<td>71/17/9</td>
<td>10-17 y</td>
<td>Age, sex, race/ethnicity, area of residence, region, parent-reported health status, days spent in bed in past year, income, and insurance status</td>
<td>Insured and uninsured black (mean, 2.2 and 1.3) and Hispanic (2.2 and 1.1) youth had fewer physician’s visits during the past year than white youth (2.8 and 2.0). Uninsured Hispanic (66%) but not black (85%) youth were less likely than white youth (82%) to have a usual source of care.</td>
</tr>
<tr>
<td>Wilson and Klein,53 2000</td>
<td>1997 Commonwealth Fund Survey of the Health of Adolescent Girls</td>
<td>6748 (boys and girls)</td>
<td>NA/NA/NA</td>
<td>5th-12th grade</td>
<td>Sex, race, insurance status, financial status, parental education, area of residence, and family structure</td>
<td>Black (OR, 2.56; 95% CI, 1.68-3.91) but not Hispanic (OR, 1.28; 95% CI, 0.76-2.15) youth were significantly more likely than white youth to use the ED as a usual source of care.</td>
</tr>
<tr>
<td>Yu et al.,14 2001</td>
<td>1994-1996 National Longitudinal Study of Adolescent Health</td>
<td>5644</td>
<td>67/14/12</td>
<td>11-21 y</td>
<td>Age, sex, race/ethnicity, insurance status, perceived health status, parental education and marital status, and income</td>
<td>Black (31%), Hispanic (36%), and white (31%) youth were equally as likely not to have had a medical examination in the past year.</td>
</tr>
<tr>
<td>Zimmer-Gembeck et al.,13 1997</td>
<td>1998 Oregon Youth Risk Behavior Surveillance Survey</td>
<td>13 992</td>
<td>81/3/5</td>
<td>9th-12th grade</td>
<td>Age, sex, race/ethnicity, and school SES and location</td>
<td>Black (AOR, 1.36; 95% CI, 0.98-1.93) and Hispanic (AOR, 1.85; 95% CI, 1.41-2.44) youth were significantly less likely than white youth to have visited a physician in the past 2 years.</td>
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(Continued)
number of studies in which black youth received fewer health services than white youth increased from 3 to 6,24-28 whereas the number reporting no racial disparity increased from 2 to 3.21

Of the 11 studies on adolescents, only 4 reported data on Hispanic youth. The results of 1 study27 indicated that Hispanic adolescents received fewer mental health care services than did white adolescents, whereas there were no group differences in the other 3 studies.24,28,30 When studies from all children and youth were included, the number in which disparities in mental health care services were found increased from 1 to 3,22,23 whereas the number of studies that found no differences between white and Hispanic children increased from 2 to 3.24 In 1 study on adolescent subjects, minority racial/ethnic groups were combined and found to receive fewer mental health services than white youth.20

There was a fairly large variation in the quality of studies on mental health services. Six studies involved either national data sets or large, representative regional populations.27,29,30,32-34 Of these studies, 1 did not use multivariate analysis,22 and 2 did not control or account for service need.27,28 Significant disparities in mental health services were present in the remaining 4 studies.

### REPRODUCTIVE HEALTH SERVICES

Fifty studies on reproductive health services were reviewed. Only 2 studies met the inclusion criteria, and both used adolescent subjects.35,36 Porter and Ku,35 using data from the 1995 National Survey of Adolescent Males, found, after adjusting for age, health insurance status, SES, and service need, that black 15- to 19-year-olds were significantly more likely than white youth both to discuss reproductive health issues with their provider (adjusted odds ratio, 1.45; P<.05) and to have a test for a sexually transmitted disease (adjusted odds ratio, 3.65; P=.05). No group differences were found for Hispanic youth. In the other study, Schuster et al36 analyzed data from 9th- to 12th-grade students from a California school district to determine the extent to which adolescents talk with a physician about sexual issues. After controlling for sex, grade, race/ethnicity, primary language spoken at home, history of sexual intercourse, and parents’ education, the researchers found that Hispanic youth (adjusted odds ratio, 1.44; 95% confidence interval, 10.5-1.98), but not black youth, were more likely than white youth to report having discussed sexual behavior with their doctor.

### ASTHMA CARE

A total of 27 studies on asthma care were identified. Only 4 studies fit the inclusion criteria for review (Table 3).37-40 Results from 1 study on adolescent subjects indicated that black youth were significantly less likely than white youth to receive preventive asthma medication.37 Hispanic youth were not included in the data set. The remaining 3 studies used subjects younger than 18 years and produced mixed results. Racial/ethnic group differences in use of preventive medications were found in 1 study38 but not a second study39; emergency department use for asthma was greater among black children in 1 study40; in the same study, black children were less likely than were white children to have an office visit for asthma,40 whereas no group difference was noted in 2 other studies.38,40
Table 2. Studies on Mental Health Care Services

<table>
<thead>
<tr>
<th>Source</th>
<th>Data Source</th>
<th>Sample</th>
<th>Race/Ethnicity, Age, Sex, Independent Variables</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bui and Takeuchi, 1992</td>
<td>1983-1988 Data from the Los Angeles County</td>
<td>3191</td>
<td>Age, sex, diagnosis, referral source, and</td>
<td>Black (standardized ( \beta = 0.43, t = 2.19, P &lt; .05 )) but not Hispanic (standardized ( \beta = 0.37, t = 1.92, P = NS )) subjects received a greater total number of outpatient visits than white youth during the 5-year study period.</td>
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<tr>
<td></td>
<td>Department of Mental Health</td>
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<td>poverty status</td>
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<td>Cohen and Hesselbart, 1993</td>
<td>1975 and 1986 Children in the Community Study,</td>
<td>760</td>
<td>Age, sex, race/ethnicity, income, and urban vs</td>
<td>Utilization of mental health services was not significantly different between white and black subjects (ORs not provided).</td>
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<tr>
<td></td>
<td>upstate New York</td>
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<td>rural residence</td>
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<tr>
<td>Cuffe et al, 2001</td>
<td>1987-1989 Interviews at 6 suburban public schools</td>
<td>579</td>
<td>Race/ethnicity, SES, diagnosis, and total</td>
<td>Black males (OR, 0.25; 95% CI, 0.09-0.71) were significantly less likely than white males to use outpatient mental health services during the first study cycle.</td>
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<td>depression score</td>
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<td>Larson et al, 2002</td>
<td>1993 or 1994 Medicaid enrollment and claims data</td>
<td>79316*</td>
<td>Age, sex, and race/ethnicity</td>
<td>Among AFDC recipients, white youth were apparently more likely than black or Hispanic youth to receive treatment for mental health conditions.</td>
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<tr>
<td>Pumariega et al, 1998</td>
<td>Students in 2 Texas school districts (date NA)</td>
<td>2320</td>
<td>Age, sex, race/ethnicity, maternal education,</td>
<td>Race/ethnicity was not significantly correlated with the mean number of lifetime mental health visits.</td>
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<td>father in household, and social competence and</td>
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<td>problem behavior</td>
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<tr>
<td>Wu et al, 2002</td>
<td>1994 National Household Survey on Drug Abus</td>
<td>1739‡</td>
<td>Age, sex, race/ethnicity, urban vs rural</td>
<td>Black youth (OD, 5.2; 95% CI, 1.88-14.41) were significantly less likely than white youth to have had treatment for alcohol use during the past year.</td>
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<td>residence, income, and insurance status</td>
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<tr>
<td>Kodjo and Auinger, 2003</td>
<td>1994-1996 National Longitudinal Study of Adolescent Health</td>
<td>3963§</td>
<td>Age, sex, rural vs urban residence, poverty</td>
<td>At the second wave of the study, black (AOR, 0.41; 95% CI, 0.27-0.62) but not Hispanic (AOR, 1.21; 95% CI, 0.77-1.88) youth were significantly less likely than white youth to have received psychological counseling during the previous year.</td>
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<td>status, insurance status, parental education,</td>
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<td>and suicide symptoms</td>
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<tr>
<td>Burns et al, 1995</td>
<td>1992-1993 Great Smoky Mountain Study of Youth</td>
<td>1015</td>
<td>Sex, race/ethnicity, economic status, and</td>
<td>Black subjects (OR, 0.39; NS) were no less likely than white subjects to use any specialty mental health services within the preceding 3 months.</td>
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<td>urban vs rural residence</td>
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<tr>
<td>Padgett et al, 1993</td>
<td>1978-1983 Blue Cross/Blue Shield claims and</td>
<td>9479</td>
<td>Age, sex, race/ethnicity, region, income, health</td>
<td>Black subjects had significantly fewer total outpatient psychiatric visits than white subjects during the second year of the study (1978, ( \beta = -4.36 ) [SE, 1.85]); 1983, ( \beta = -3.45 ) [0.74], ( P &lt; .01 )), whereas Hispanic subjects had significantly fewer visits during both study periods (1978, ( \beta = -8.02 ) [2.47]; 1983, ( \beta = -3.76 ) [1.13], ( P &lt; .01 ) for both).</td>
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<td>enrollment data for federal employees and their</td>
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<td>plan options, family mental health history, and</td>
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<td>families</td>
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<td>child’s inpatient mental health treatment history</td>
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<tr>
<td>Ringel and Sturm, 2001</td>
<td>1996-1998 data from 3 large surveys (NSAF, CTS,</td>
<td>59426</td>
<td>Age group and insurance status</td>
<td>“Black and Hispanic children have lower rates on any mental health service use, and those differences remain even after controlling for insurance” (statistics not provided).</td>
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<tr>
<td></td>
<td>and NHIS)</td>
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<tr>
<td>Wu et al, 1999</td>
<td>1992 Methods for the Epidemiology of Child and</td>
<td>1285</td>
<td>Age, sex, race/ethnicity, income, insurance</td>
<td>Black (AOR, 0.57; 95% CI, 0.32-0.98) but not Hispanic (AOR, 0.78; 95% CI, 0.30-1.87) subjects were significantly less likely than white subjects to use mental health services during the study period.</td>
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<tr>
<td></td>
<td>Adolescent Mental Disorders Study¶</td>
<td></td>
<td>status, maternal education, and mental health</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>status</td>
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</tbody>
</table>

Abbreviations: AFDC, Aid to Families With Dependent Children; AOR, adjusted odds ratio; CI, confidence interval; CTS, Community Tracking Study; NA, not available; NHIS, National Health Interview Survey; NSAF, National Survey of American Families; NS, not significant; OR, odds ratio; SES, socioeconomic status.

*Sample from Michigan, New Jersey, Pennsylvania, and Washington; race/ethnicity percentages are the mean percentages of subjects aged 2 to 19 years from all 4 states.
†Subjects who reported using alcohol.
‡Subjects with scores in the top third on an emotional distress scale.
§Subjects had at least 1 mental health service visit.
¶Subjects with scores in the top third on an emotional distress scale.
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also an indication of racial and ethnic disparities in ado-
egency SES and health insurance status, thus adding to the
national data sets and carefully controlled for both fam-

iment of mental health care services. Again, the
data are more consistent for black than for Hispanic youth.
Although these results were somewhat less generalizable
than the results for primary care, disparities were
found in each of the 4 most rigorous studies. The im-
portance of any disparities for mental health care ser-
vices is significant in light of results from community-
based clinical epidemiological studies on mental health
diagnoses among adolescents. Data from several large
studies indicate that, after controlling for SES, there are
no differences in the prevalence of depressive symp-
toms or affective disorders among black, Hispanic, and
white youth.31-44 Thus, disparities in mental health care
services probably cannot be explained by variations in
prevalence of mental health disorders.

Third, although too few studies are available to draw
a conclusion, the results suggest that minority youth might
actually receive more reproductive health services than
white youth. The small number of studies on reproduc-

<table>
<thead>
<tr>
<th>Source</th>
<th>Data Source</th>
<th>Sample No. (Criterion)</th>
<th>Race/Ethnicity, White/Black/Hispanic, %</th>
<th>Age Range</th>
<th>Age Group</th>
<th>Race/Ethnicity, Rural vs Urban Residence, and Asthma Severity</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cooper and Hickson,27 2001</td>
<td>1995-1997 Tennessee Medicaid enrollees*</td>
<td>8155*</td>
<td>55 (White or other)/45/NA</td>
<td>10-17 y</td>
<td>Age group, race/ethnicity, rural vs urban residence, and asthma severity</td>
<td>After a hospital discharge for asthma, black subjects aged 10-13 y (AOR, 0.53; 95% CI, 0.39-0.73) and 14-17 y (AOR, 0.53; 95% CI, 0.39-0.73) were significantly less likely than white subjects to fill a prescription for corticosteroids; similar results were found for black subjects aged 14-17 y (AOR, 0.79; 95% CI, 0.67-0.94) but not 10-13 y (AOR, 1.01; 95% CI, 0.88-1.18) after an ED visit for asthma.</td>
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</tr>
<tr>
<td>Lieu et al,38 2002</td>
<td>Telephone interviews with parents and Medicaid claims forms of children in 5 MCOs</td>
<td>1648†</td>
<td>31/38/19</td>
<td>2-16 y</td>
<td>Age, sex, race/ethnicity, income, asthma status, primary language, and parental education</td>
<td>Black and Hispanic subjects were significantly less likely than white subjects to use daily inhaled AIDs but were more likely to have a written management plan and a nebulizer; there were no group differences for having had a preventive clinic visit during the past 6 months;‡ Black subjects with asthma were more likely than white subjects to have had an ED visit (OR, 1.70; 95% CI, 1.34-2.15) and less likely to have had an office visit (OR, 0.48; 95% CI, 0.26-0.85). There were no group differences for pharmacy claims for asthma medication (OR, 0.87; 95% CIs, 0.44-1.72).</td>
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</tr>
<tr>
<td>Lozano et al,39 1995</td>
<td>1988-1992 data from Washington state AFDC enrollees</td>
<td>1945†</td>
<td>70/30/NA</td>
<td>3-17 y</td>
<td>Age, sex, race/ethnicity, area of residence, type of provider, and length of AFDC eligibility</td>
<td>Black and Hispanic subjects were more likely than white subjects to have had an ED visit (OR, 1.70; 95% CI, 1.34-2.15) and less likely to have had an office visit (OR, 0.48; 95% CI, 0.26-0.85). There were no group differences for pharmacy claims for asthma medication (OR, 0.87; 95% CIs, 0.44-1.72).</td>
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<tr>
<td>Stoddard et al,40 1994</td>
<td>1987 National Medical Expenditures Survey</td>
<td>7578</td>
<td>NA/NA/NA</td>
<td>1-17 y</td>
<td>Age, race/ethnicity, income, insurance status, and region</td>
<td>After controlling for insurance status and income, neither black (AOR, 1.55; 95% CI, 0.98-2.45) nor Hispanic (AOR, 1.34; 95% CI, 0.65-2.78) subjects were less likely than white subjects to have seen a physician for asthma during the past year.</td>
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</tbody>
</table>

Table 3. Studies on Asthma Services

COMMENT

As described in the recent IOM report, racial and ethnic disparities in health care for adults persist after accounting
for access to health care and SES.1 Our results suggest that a similar disparity might also exist for adoles-
cents. A systematic review of the scientific literature yielded 4 findings.

First, a racial and ethnic disparity in utilization of primary care is noted when studies of adolescents and all children and youth younger than 18 years are taken together. The findings were more consistent for black than for Hispanic youth. Most studies on primary care used national data sets and carefully controlled for both family SES and health insurance status, thus adding to the strength of the findings.

Second, although the data are not as strong as with primary care, when all studies are considered, there is also an indication of racial and ethnic disparities in ado-

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Attention is being directed at understanding the magnitude and causes of racial and ethnic disparities in health care. Studies on adult populations strongly suggest that disparities exist even after controlling for the effects of SES and access to care. These findings have been noted for a range of medical disorders.

The current review is the first comprehensive study of racial and ethnic disparities in health care for adolescents. The findings suggest that more attention should be directed at understanding disparities in this age group. Although ensuring access to care for adolescents is important, this should not cloud the need to identify and implement strategies for reducing factors other than access that cause disparities among minority youth.

The results of this review raise important questions about the magnitude of racial and ethnic disparities in adolescent health care. The limited number of studies in which race and ethnicity are examined, independent of SES and health insurance status, are too few to draw definitive conclusions. Instead, the results provide a direction for further research. Key national data sets, such as the National Survey of Family Growth, the National Longitudinal Survey of Youth, and the National Longitudinal Survey of Adolescent Health, contain valuable information that was previously extracted for it. Additionally, the findings of the IOM report: access to care, race and ethnicity were both associated with health insurance status, leaving unanswered the question of independent contributions made by either variable to health care services. As with reproductive health services, there were too few studies on adolescents’ use of health care services for asthma to draw meaningful conclusions.

A review of this magnitude has several limitations. Foremost is the problem of ensuring identification of all relevant scientific articles. Although articles were identified through a systematic review of the literature and informant interviews, some key studies may have been missed. However, it is unlikely that enough were missed to obscure a significant trend in results. A second limitation is the lack of statistical analyses to determine the significance of the differences found. Although a meta-analysis of the data might have provided statistical results, the results could be misleading given the small number of studies and the wide variability in sample size, the quality of data collected, and analytical methods. Instead, this review should be viewed as exploratory, rather than explanatory. A third limitation is the small number of studies using adolescent subjects. Findings of disparities were often only noted when studies on children and youth were added to those on adolescents. Each of these studies included sizable numbers of adolescent subjects; nevertheless, it was not possible to determine the extent to which the findings were dependent on disparities among young children, rather than on disparities among adolescents. Lastly, a final limitation to the analysis is that the studies chosen for review and the data abstracted from the articles were only reviewed by the research assistant and the senior author. Having someone outside of the data gathering process review the findings might have reduced any unintended bias.

The IOM speculate that variations of health care services might be related to a combination of provider and patient factors and/or interaction among factors within the health care system. Some factors, such as type and location of the clinic setting, general mistrust of the health care system, and concerns regarding confidentiality of the visit, deter minority youth from seeking care. Most factors suggested by the IOM, however, influence care once patients are in clinical settings. Health care system-level factors include fragmentation of services, the fact that minorities might be disproportionately enrolled in lower-cost health care programs that provide fewer services, de-selection of minority physicians by some health plans, the failure to provide a culturally diverse workforce, and the lack of linguistically diverse clinic signs and materials. Patient-level factors include cultural beliefs that lead people to use ineffective and unproved remedies and low health literacy that influences understanding of recommended management plans. Physician-level factors relate to stereotypic beliefs of minority patients, and adolescents, that might bias diagnostic and management strategies. This becomes especially problematic when physicians are faced with diagnostic or therapeutic uncertainty and have limited time to confirm the accuracy of information as it pertains to individual patients.

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could be used to analyze the relative importance of SES, access to care, service need, and race/ethnicity on adolescent health care. More data will also be needed on causes of the disparity and strategies for change.

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