EXERCISING PURCHASING POWER FOR PREVENTIVE CARE

by Helen Halpin Schauffler and Tracy Rodriguez

Prologue: More than five years ago the U.S. Public Health Service released Healthy People 2000, a document laying out the federal government's strategy for health promotion and disease prevention for the decade. The document built upon “the strong foundation of federalism that undergirds the American public health system by involving both private and public sectors at all levels,” in the words of James O. Mason, who was then assistant secretary for health in the Department of Health and Human Services. This paper by Helen Schauffler and Tracy Rodriguez provides an example of how one powerful employer purchasing coalition, the Pacific Business Group on Health (PBGH), has taken the private-sector side of this mandate seriously. The PBGH, based in California’s San Francisco Bay Area, is one of the nation’s largest private employer purchasing groups. More than thirty major employers, representing 2.5 million persons, are members of the PBGH, formerly the Bay Area Business Group on Health. A powerful force for change in the Pacific region, the PBGH has expressly included health promotion and disease prevention in its definition of health value. The PBGH pays health plans based on how well they provide appropriate preventive care and encourages employers and workers to select health plans on that basis. The PBGH produces report cards that rate the performance of the health plans it offers to employer groups; it released its first such report card in February 1995. Schauffler an associate professor of health policy at the University of California (UC), Berkeley, School of Public Health. She holds a doctorate in health policy from Brandeis University in Waltham, Massachusetts. Rodriguez, formerly the director of quality for the PBGH, is performance measurement manager at Kaiser Permanente, Northern California. She holds master's degrees in public health and business administration from UC Berkeley.
Abstract: Public and private purchasers can shift the focus of the health care system from managing the delivery of medical services to improving health. We report on the efforts of the Pacific Business Group on Health to include health promotion and disease prevention in its definition of health care value, to pay health plans based on their performance in providing appropriate preventive care, and to encourage employers and workers to choose health plans that excel in promoting health. This example serves as a model for other purchasing groups by combining economic incentives and systems of accountability to achieve public health goals.

Health plan purchasing alliances have the power to redefine the goal of health system reform from one of managing care to one of managing health. Increasingly, large purchasers of health care are seeking to buy “value” for their health care dollars and are beginning to define value in terms of disease prevention and improved health status. Purchasing alliances offer an opportunity to improve Americans' health by combining economic incentives and systems of accountability to achieve public health goals and objectives.

In this paper we report on the efforts of one of the nation's largest private employer purchasing groups—the Pacific Business Group on Health (PBGH)—to include health promotion and disease prevention in its definition of value, to pay health plans based on their performance in providing appropriate preventive care, and to encourage employers and employees to choose health plans that excel in promoting health and preventing disease.

Genesis of the PBGH. In 1989 executives from the Bank of America and Wells Fargo Bank, frustrated by their inability to control their companies' double-digit health care cost inflation, formed the nonprofit Bay Area Business Group on Health. The coalition initially represented ten of the largest corporations headquartered in the San Francisco Bay area.

In the six years it has been in existence, the coalition has changed in function, size, and name. In 1994 the coalition created a purchasing alliance that began negotiating health care benefits on behalf of eleven member companies, achieving premium reductions of 8-10 percent from many of the largest health maintenance organizations (HMOs) in California, and saving participating employers more than $36 million. In 1995 the alliance negotiated another 4 percent reduction from HMOs for seventeen of its member companies. That same year the coalition changed its name to the Pacific Business Group on Health to reflect its growing membership of very large employers (those with more than 2,000 employees) headquartered in California and its strategic alliances with other coalitions in the western United States. As of December 1995 PBGH membership had grown to thirty companies, representing more than 2.5 million Californians and more than $3 billion in annual health care spending.

In 1990, in its first strategic planning effort, the PBGH identified disease prevention as a top priority. Its initial efforts focused on worksite health
promotion programs. The coalition developed and disseminated to its member companies comprehensive strategies to reduce stress, improve fitness, prevent back injuries, and in general enhance employees’ health. Many of these strategies were implemented by PBGH companies.

By 1991, however, the PBGH began directing most of its prevention efforts toward the health plans, encouraging them to provide comprehensive preventive care to all of their enrollees. This plan-based approach took advantage of the PBGH’s power as a major purchaser of health care. This approach also increased the provision of preventive services for all persons covered by participating employers, including many who often are not reached by worksite wellness programs, such as employees in small worksites or remote regions, dependents, and retirees. Finally, this strategy has the potential to improve the health of the fifteen million Californians enrolled in the major health plans targeted by the PBGH, not just the employees of PBGH companies.

In the past several years the PBGH has adopted standard guidelines, benefits, and performance measures for preventive care and, through its negotiations with health plans, has established economic incentives to improve the provision of comprehensive preventive care to all health plan enrollees. Health plans in California that want a share of the PBGH’s health care dollars understand that they will be paid for performance that is consistent with the recommendations of the U.S. Preventive Services Task Force’s (USPSTF’s) Guide to Clinical Preventive Services and that achieves or exceeds the health objectives for the nation as set forth by the U.S. Public Health Service in Healthy People 2000.  

First Step: Adopting Guidelines

On 30 January 1992 the PBGH convened the first meeting of the California Task Force on Preventive Services (CATFPS), which included the medical directors of major California health plans, the benefit managers of PBGH companies, and an academic research consultant. Its purpose was to discuss ways that health plans and employers could work together to ensure that employees and their families receive appropriate levels of preventive care and to encourage health plans and providers to assume more responsibility for that care. The results of the PBGH’s 1991 employee survey, the Health Plan Value Check (HPVC), showed that although many plans offered health promotion programs to their members, few participated in them. The HPVC also found that physicians were not routinely discussing health promotion issues with their patients.

That same year the PBGH also surveyed member companies on their worksite wellness programs and polled health plans on the provision of
preventive services. The employer survey found that although most companies offered health promotion programs, few of these programs extended to employees working in small sites and remote locations or to dependents and retirees. In addition, the survey of health plans found that many of the plans followed outdated guidelines for preventive care or used no guidelines at all, and most failed to collect data on use of preventive services. These three surveys of employees, member companies, and health plans suggested that neither the employers nor the health plans were providing comprehensive preventive care and that data to assess the performance of health plans or employers on health promotion and disease prevention simply were not available.

Guidelines for preventive care. To remedy these problems, the CATFPS decided to adopt uniform guidelines and core data elements for preventive care. The task force reviewed a number of preventive care guidelines and ultimately chose those of the USPSTF, for the following reasons: (1) These guidelines were developed by a national panel of experts (rather than a single interest or professional group); (2) they are grounded in a rigorous review of the scientific evidence on efficacy and effectiveness; (3) they cover all age groups; and (4) they address more than 100 interventions to prevent sixty illnesses and medical conditions. By June 1992 the CATFPS had agreed to adopt the preventive care guidelines for screening and immunizations that were recommended for healthy adults by the USPSTF.

Guidelines for counseling. Reaching agreement on guidelines for counseling on prevention was more difficult. The health plans and member companies were not as familiar with the research base behind the recommendations for counseling in such preventive areas as smoking cessation, nutrition, exercise, motor vehicle injuries, household and environmental injuries, human immunodeficiency virus (HIV) infection and other sexually transmitted diseases (STDs), unintended pregnancy, dental disease, and alcohol and drug use. They questioned the cost and cost-effectiveness of counseling; argued over who should provide the counseling, how often it should be provided, and how it should be done; and expressed concerns over plans' ability to measure provision of counseling services.

In September 1992, after much debate, the CATFPS reached final agreement on the precise wording of recommendations for appropriate preventive counseling. The task force also agreed that the recommended counseling services should be provided to all enrollees of all health plans at least once every three years. Working from a set of national guidelines, the CATFPS had taken nine months to reach agreement on comprehensive preventive services recommendations. Next, the CATFPS began to discuss ways to measure care against these guidelines. The task force developed a
core data set for preventive care, which included standard definitions and suggested methods for measuring the provision of many of the recommended screening tests and counseling services.

**Agreement with health plans.** The chief executive officer of each health plan then was asked to sign an agreement indicating that his or her health plan "is dedicated to improving the health of its enrollees and agrees to encourage appropriate utilization of preventive services in California." The agreement stated that the health plan would (1) adopt the USPSTF Guide for Clinical Preventive Services for adult screening and immunizations; (2) adopt the counseling guidelines as defined by the CATFPS, which are based on the USPSTF recommendations; (3) collect core data on the provision, use, and outcomes of preventive services for California enrollees; and (4) collect and submit to the PBGH the core preventive care data defined by the CATFPS. Data collection was to begin in 1993 with the submission of data on the proportion of continuously enrolled women ages fifty to sixty-five in California who had had a mammogram in the past two years, and the proportion of continuously enrolled women ages eighteen to sixty-five who had had a Pap smear at least once in the past three years.

The CATFPS then made plans to distribute its Preventive Care Guidelines for Healthy Adults to the more than 30,000 primary care physicians practicing in California. The PBGH implemented a media campaign in April 1993 to publicize its landmark agreement with sixteen of the major health plans and seventeen of the largest employers in California. Using the same process, the CATFPS completed its review and reached consensus on Preventive Care Guidelines for Healthy Children and Adolescents in December 1993. These, too, were subsequently mailed to all family physicians and pediatricians practicing in California and released to the media.

**Problems.** Despite the commitments made to the agreement, full adherence to the guidelines has not yet been achieved. Some health plans, in an attempt to reach consensus with physicians and other health professionals within their organizations, have interpreted the PBGH screening guidelines as minimum guidelines. Their internal guidelines, for example, may extend mammography to low-risk women between the ages of thirty-five and fifty or promote prostate screening for low-risk men over age fifty. On the other hand, a number of plans regularly communicate the guidelines to both physicians and enrollees, and a few have helped physicians to implement reminder systems and other ways to improve use of the guidelines.

Most plans, however, have taken only minimal steps to promote the counseling guidelines. Some of the plans' medical directors question the original agreement—they argue that routine discussion of these topics with healthy persons is unnecessary. Others question the need for face-to-face communication and wonder whether newsletters, videotapes, and other
materials would suffice. Clearly, there is a need for the USPSTF to better define what is appropriate counseling.

**Incorporating guidelines into a model benefit.** In 1993 the PBGH began evaluating the feasibility of group negotiating for its member companies and incorporating the preventive services guidelines into its negotiations. By spring 1993 PBGH employers had reached consensus on a model benefit plan for HMOs that incorporated the preventive care guidelines adopted by the CATFPS by requiring coverage for all preventive services recommended for healthy adults, adolescents, and children.

The initial model benefit plan proposed zero copayments for preventive care, to remove all financial barriers to preventive services. Copayments for most other outpatient services were set at five dollars. California HMOs were asked for preliminary bids on the model benefit plan. The majority indicated that they could not implement different copayments for preventive and acute care. Based on this feedback, the PBGH increased the preventive care copayments in its model benefit plan to five dollars.

The PBGH model benefit plan, which incorporates the recommendations of the USPSTF, has been adopted by all of the employers participating in the PBGH negotiating alliance, by many PBGH employers that have not participated in the alliance, and by a number of other employers and coalitions across the country.

**Collecting data on health plan performance.** Nearly all of the health plans provided the requested Pap smear and mammography data to the PBGH by 1993, as they had agreed to do. Unfortunately, the quality of the data provided by the plans was poor (reported screening rates ranged from less than 5 percent to more than 95 percent). The PBGH quickly learned that simply requiring health plans to provide data does not ensure that the data will be comparable or reliable. Also, none of the plans provided all of the data elements originally defined by the CATFPS. Shortly before the PBGH deadline for plan data, the National Committee for Quality Assurance (NCQA) released its Health Plan Employer Data and Information Set (HEDIS), Version 2.0. Following its release, the health plans became reluctant to provide any data beyond the HEDIS measures, and PBGH employers agreed to forgo the other CATFPS-defined data elements that were not in HEDIS, including several that measured counseling.

Because the health plans had not provided the PBGH with data it could use to assess and compare plans’ performance on preventive care, the PBGH began to collect its own data on use of preventive services, by health plan. Given the limitations of most health plans in producing reliable data, other purchasing alliances may find themselves in a similar situation. The PBGH began by including specific questions in its 1993 HPVC on the screening and counseling that employees received from their health plans.
Every year a sample of employees randomly selected by health plan and employer are surveyed. Employees are asked about their satisfaction with their plan and physician; if they received specific screening tests appropriate to their age and sex; and if a physician or other health professional discussed smoking, exercise, nutrition, and other health promotion topics with them in the past three years.

Another PBGH effort to improve information on health plan performance in preventive care has been the development of the California Cooperative HEDIS Reporting Initiative (CCHRI). This is a collaborative, statewide effort that uniformly collects, audits, analyzes, and reports HEDIS data. Although the CCHRI is governed by purchasers, health plans, and providers, it is managed by the PBGH. Each year between twenty and twenty-five plans participate in the effort. The initiative's major advantage is that all of the data are either collected or verified by a single, independent, third-party auditor. This method reduces the burden of data collection on medical care providers (whose records are reviewed only once for all participating health plans) and produces rates that are more comparable across plans. However, the CCHRI had difficulty obtaining charts from providers in both its first and second years. Overall, the CCHRI was unable to obtain nearly 20 percent of the sampled records. The number of unavailable charts varied by plan. Because HEDIS specifications require that unreviewed records be counted as negative and assume that services in such records have not been provided, plans with a large proportion of unreviewed records have lower rates of providing recommended services. In addition, the CCHRI identified differences in rates among the three collection methods HEDIS permits: medical record, administrative data, and hybrid (a combination of the two). Thus, comparisons of performance on HEDIS measures across health plans were fraught with difficulties. Nevertheless, despite these problems, the CCHRI is now in its third year of data collection.

**Updating guidelines and benefits.** The CATFPS formally changed its name to the Health Services Advisory Committee (HSAC) in January 1994, to reflect the group's intention to address a wide variety of health care topics in addition to preventive care. For example, the HSAC is defining benefits for mental health and fertility services. The HSAC also continues to meet to develop additional preventive care guidelines to incorporate into the model benefit plan. Since January 1994 the HSAC has adopted preventive guidelines for healthy adults over age sixty-five, as well as guidelines on preventive services that are not universally recommended for healthy adults under and over age sixty-five or for healthy children and adolescents. Next, the HSAC will try to develop consensus on preventive care guidelines for pregnant women and high-risk persons, such as those...
with a family history of disease or with a chronic condition.

Through the work of the HSAC, an ongoing mechanism has been established for the PBGH to reach agreement with the major health plans and employers in the state on appropriate health care. This is then translated into benefit packages requested by employers and offered by HMOs. The PBGH also has coordinated its work on preventive services with that of other groups, including the California Department of Health Services (DHS), which has developed preventive care guidelines and defined preventive services benefits for Medicaid managed care contracts. In addition, the PBGH is working with other large employers and purchasers in California, including the California Public Employees Retirement System (CalPERS), which is a member of the PBGH.

Second Step: Rewarding Health Plans’ Prevention Efforts

The PBGH has incorporated its preventive services guidelines into many aspects of its negotiations. During its first year of group negotiating, the PBGH asked participating HMOs to make 2 percent of their premiums contingent on their performance on selected measures in three areas: customer service, quality, and provision of data. Where possible, the 1996 measures are defined by national standards, such as HEDIS.

The PBGH meets with each HMO to negotiate targets and the dollar amounts at risk for each measure. Targets are negotiated based on a health plan’s current performance, its performance relative to competing HMOs, and its ability to change its performance. Plans with lower performance measures are encouraged to undertake significant efforts to improve their rates. Plans with better performance measures are allowed to set targets that will maintain or only slightly improve their performance. In addition, PBGH employers ask health plans to accept greater financial risks in areas needing the most improvement.

The amount of money at risk in the 1995 benefit year was nearly $7 million, approximately 30 percent of which, or $2.2 million, was allocated to prevention performance measures. Health plans will receive approximately $500,000 if they meet targets for Pap smears and mammograms. They will receive more than $1.7 million if they provide data on smoking cessation, childhood immunizations, and other HEDIS quality indicators.

If a health plan has reason to question the availability or reliability of its data on a particular measure, the measure is moved to the provision-of-data category. In this category, health plans are financially rewarded if they submit accurate data by the date requested. Once a health plan demonstrates that it is able to collect the required data, the measure is moved to the customer-service or quality category, where performance targets are set.
and financial incentives are negotiated.

New preventive care quality measures for 1996 include three additional HEDIS indicators—prenatal care, diabetic retinal exam, and cholesterol screening—and a new provision-of-data measure on the extent to which plans have informed members of the availability of wellness programs. In 1996 these measures will be used with point-of-service plans, as well as with HMOs. In addition, a number of employers that are not part of the PBGH negotiating alliance have adopted these measures.

**Third Step: Influencing Market Share**

**Publishing performance data.** The PBGH also influences health plans' provision of appropriate preventive care by publishing health plan performance data on prevention, to influence employers' and consumers' choice of health plans. One source of information on plan performance in preventive care is the PBGH's HPVC survey. The PBGH uses the results of its annual consumer survey to rank plans according to their provision of preventive screenings and preventive counseling. In general, screening rates are relatively high, averaging 80 percent, while counseling rates are low, averaging 20 percent.

The rankings are shared with health plans and purchasers in an annual report card. The PBGH encourages purchasers to use the report cards to choose plans that excel in preventive care and to work with plans to improve screening and counseling rates. The CCHRI released its first public report card based on its first year of data collection in February 1995. This report card graded twenty-one HMOs, which collectively provide health care services to more than 95 percent of all HMO members in California, on the provision of the preventive care screening measures included in HEDIS. The CCHRI also released a lengthier, more detailed report to participating health plans and employers that provided actual rates for each of the performance measures. Because of problems resulting from variations in the availability of medical charts across health plans, the CCHRI decided not to produce a public report card for its second year but will produce a report card for its third year.

**Finding out what consumers need.** The PBGH sponsors focus groups to identify the types of information consumers want and need to choose a health plan and to determine how that information should be presented. The questions asked of recent focus groups and their responses are summarized below.

(1) *What information would you like to have to choose among health plans with the same coverage, prices, doctors, and hospitals?* Consumers had difficulty answering this question despite significant probing. Many participants
mentioned that they would discuss their choice with family and friends. Information about satisfaction with health plan was mentioned only once. Quality of care was never mentioned.

(2) **Would you like to receive information on health plans’ rates of preventive care to help you to choose a health plan?** Consumers were asked to use a scale of one to ten to indicate how much they would like to receive information on plan performance on each HEDIS preventive care measure (a ten indicated that they would really like to obtain the information). Nearly all of the HEDIS indicators received a score of eight or higher. Participants rated prenatal care and childhood immunizations the highest and diabetic retinal exams the lowest. Although some participants questioned health plans’ role in influencing rates of preventive care, others responded that health plans could improve these rates by sending out reminders to patients. In general, consumers highly valued health plan information on prevention.

(3) **How would you like this information to be presented?** Participants were shown a variety of formats. In general, consumers preferred simpler formats, such as grades “A,” “B,” or “C,” to the *Consumer Reports* format of “above average,” “average,” or “below average,” and either of those formats over actual rates, such as 80 percent or 85 percent. In addition, consumers made fewer mistakes interpreting the results when they were shown grades than when they were shown other formats. Consumers reported that numbers took too much time to decipher and that they had difficulty reading charts with bars and graphs, interpreting information about confidence intervals, and understanding population targets, such as those defined in *Healthy People* 2000.

(4) **Would you use this information?** Most consumers indicated that in choosing a new health plan they would use the information on the report cards, along with other information, such as suggestions from family, friends, and coworkers.

(5) **Would you change health plans based on this information?** Consumers indicated that they would not change their health plan based on this information alone. If, however, they were unhappy with their health plan, a poor performance on the report card might provide the impetus to change plans.

The findings from the PBGH consumer focus groups suggest that although people do not think of using information on quality of care or preventive care to choose health plans, they value this information and would use it if it were available. The PBGH encourages its member companies to use the findings from the HPVC report cards in their open enrollment materials to influence employees’ selection of a health plan. The focus group findings suggest that employees will use this information, par-
titularly if they are unhappy with their plan and contemplating a change.

Several PBGH employers have begun to incorporate the results from the HPVC survey into their open enrollment materials for their employees. In 1995, for example, Chevron, Stanford University, the Fireman's Fund, Lockheed, and Union Bank included scores or grades for health plan satisfaction; and Stanford, Lockheed, and Union Bank also included scores or grades on preventive care.

**Defining a health behavior measure for smoking.** Of all of its performance measures, the PBGH has had the most difficulty obtaining consensus on a measure related to smoking cessation. There are well-established, validated instruments—such as the Centers for Disease Control and Prevention's (CDC's) Behavioral Risk Factor Surveillance System—that ask about individual smoking behavior. The difficulty lies in the uncertainty over how and how much health plans can be expected to affect their members' smoking rates and the possible perverse incentives that might be introduced if health plans were held accountable for their members' health behavior.

Measuring actual smoking rates or changes in smoking rates could induce health plans to avoid enrolling smokers as members. Relying on quit rates, while encouraging health plans to focus on the preferred outcome, may place a plan with a higher proportion of members who are heavy smokers at a disadvantage and would not address the problem of recidivism, which may be as high as 90 percent. Also, any action that health plans and providers take to discourage smoking is likely to be only one of many factors contributing to smoking behavior, many of which are outside the plan's control.

To avoid these problems, the PBGH initially elected to hold health plans responsible for providing appropriate smoking cessation counseling to their members. The smoking performance measure was defined in 1994 as the “percent[age] of smokers who have discussed smoking cessation with a health professional in their health plan at least once in the last three years.” This measure encouraged health plans to identify smokers (most plans are unable to do so at this time) and encouraged providers to discuss smoking cessation with patients.

However, the measure for smoking cessation counseling also was problematic because it did not assess the content, length, or quality of the counseling. Thus, a high rate of counseling could mean that health plan providers are simply asking patients if they smoke or not, or it could mean that providers are helping smokers to set a quit date, offering them prescriptions for nicotine patches, and referring them to smoking cessation programs. In addition, since providers do not routinely record provision of preventive counseling in the patient record, these rates have to be obtained from patient reports that cannot easily be validated.
The PBGH performance measure for smoking cessation was changed in 1995 to measure what health plans are doing to reduce smoking, rather than relying on patients' reports of what providers are doing. The new measure requires health plans to (1) provide an action plan for the identification of the smoking population; (2) indicate what they are doing to help smokers quit; and (3) describe how they influence providers to make smoking cessation counseling a routine part of patient care. However, this measure will not provide the PBGH with information on how many smokers were helped or how many have quit.

The problems that the PBGH has had in identifying a measure for smoking cessation are likely to be repeated as it develops measures for changes in other health behaviors. However, the USPSTF concluded that “the most promising role for prevention in current medical practice may lie in changing the personal health behaviors of patients.” Thus, the development of performance measures addressing health behavior is critical if health plans' practices are to be aligned with goals to improve public health.

Funding research on preventive care. PBGH employers established a Quality Improvement Fund (QIF) in 1994 to support the HPVC and the CCHRI, as well as health services research, including research on preventive care. The PBGH has funded research to learn if health plan performance on prevention influences employees' satisfaction with their health plan. The research found that employees who reported that they were offered and/or used their plan's health promotion programs are more likely to be satisfied with their health plan, are more likely to recommend their plan to family and friends, and are less likely to switch to another plan in the future. In addition, employees who reported that a health professional discussed health education topics with them in the past three years are more likely to be satisfied with their physician. These findings suggest that health plans that provide and encourage use of prevention programs may increase member satisfaction and be in a better position to maintain or even increase market share.

Conclusion

The experience of the PBGH suggests that many strategies are available to purchasing alliances to improve access to and quality of health promotion and disease prevention services. The PBGH's efforts to influence health promotion and disease prevention for its member companies have focused on creating systems of accountability, combined with the imposition of economic incentives, to influence health plan provision of clinical preventive services, particularly screening and immunizations. The defini-
tion of guidelines, benefits, and performance measures for preventive counseling and other health promotion activities has been difficult.

While there is growing interest in holding health plans accountable for enrollees' health status, a major barrier to moving further in this direction is the limited role medical care plays in determining health behavior and health status. To the extent that purchasers continue to try to define "value" as health improvement, they eventually will force health plans to look outside the confines of the clinical encounter and beyond the actions of physicians to identify others with whom they can work to influence the health behavior of individuals and the health of our communities.

NOTES


3. Ibid.

4. A copy of the PBGH preventive care guidelines may be obtained from the authors at the University of California, Berkeley, School of Public Health, 406 Warren Hall, Berkeley, California 94720-7360.


6. National Committee for Quality Assurance, Health Plan Employer Data and Information Set (HEDIS), Version 2.0 (Washington: NCQA, October 1993). The HEDIS 2.0 indicators included childhood immunizations by the second birthday, cholesterol screening for adults ages forty to sixty-four in the past five years, mammography screening for women ages fifty-two to sixty-four in the past two years, Pap smears for women ages twenty-one to sixty-four in the past three years, low-birthweight rates, prenatal care in the first trimester of pregnancy, asthma admissions, an eye examination in the past year for persons with diabetes to prevent blindness due to retinopathy, and outpatient follow-up after admission for a major affective disorder.


