U.S. Insurance Coverage of Contraceptives and the Impact Of Contraceptive Coverage Mandates, 2002

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CONTEXT: *In 1993, coverage of reversible contraception by U.S. health insurance plans was extremely low. Little is known about how coverage has changed since then, particularly in response to state mandates.*

METHODS: *In 2001–2002, a nationally representative sample of 205 health care insurers responded to a survey about coverage of reproductive health care services in "typical" employment-based managed care plans (excluding self-insured plans). Data were analyzed to compare coverage in states with and without contraceptive coverage mandates, and to show trends in coverage between 1993 and 2002.*

RESULTS: *In 2002, almost every reversible contraceptive service and supply studied was covered by at least 89% of typical plans; 86% of plans covered the five leading prescription methods (the diaphragm, one- and three-month injectables, the IUD and oral contraceptives). Coverage of each contraceptive service and supply studied was higher in 2002 than in 1993 (78–97% vs. 32–59%). Plans in states with mandates were significantly more likely to cover the five leading prescription methods (87–92%, depending on type of plan) than were those designed locally in states without mandates (47–61%). Between 1993 and 2002, state mandates were estimated to account for 30% and 40% of the increase in coverage of oral contraceptives and the three-month injectable, respectively.*

CONCLUSIONS: *Coverage of reversible contraception—and by extension, choice within a range of covered methods—has increased substantially since 1993, in part because of state mandates. This state-by-state approach, however, has inherent limitations that can best be dealt with at the federal level.*

Perspectives on Sexual and Reproductive Health, 2004, 36(2):72–79

In the early 1990s, private health insurance plans covered prescription contraceptives much less frequently than they did other prescription drugs and devices.[1] Since then, policymakers and advocates have attempted to eliminate this disparity in a variety of ways, including the enactment of state mandates to require contraceptive coverage. In this article, we gauge progress toward achieving this goal and examine the relationship between state mandates and this progress.

BACKGROUND

Americans can obtain health coverage in three primary ways: through their employers, the private market and government programs. Approximately 77% of insured Americans younger than 65 receive benefits through their or a relative's employer, 6% through individual coverage and 17% through government programs, such as Medicaid.[2]

Traditionally, Americans obtained insurance by enrolling in indemnity plans, in which a patient receives care from any provider and is partially reimbursed for services covered by the plan. U.S. health coverage has shifted almost entirely to managed care health plans,[3] which attempt to control costs through such means as requiring authorization for certain types of care and encouraging preventive health care. Managed care can be divided roughly into three categories. Health maintenance organizations (HMOs) provide extensive benefits at little cost beyond the monthly premiums, but they restrict access to providers and services. Preferred-provider organizations (PPOs) are similar to indemnity plans in terms of benefits, but encourage the use of providers with whom the insurance company has negotiated discounts. Point-of-service (POS) plans typically have HMO-style gatekeepers, but have an option of freer access to providers and services at a higher cost.

Roughly one-half of individuals with employer-sponsored insurance are enrolled in insured plans, which are purchased from insurance companies;[4] the other half are covered by self-insured plans, in which the employer directly pays some or all of each employee's medical expenditures and assumes the risk that expenses may be unexpectedly high. Insured plans are governed by state insurance laws, whereas plans operated by self-insured employers are regulated by the federal government.*

Although government health insurance programs have long guaranteed coverage of most reproductive health services, private insurance plans have traditionally had no such guarantees. A 1993 Alan Guttmacher Institute (AGI) survey of employment-based plans found that virtually all typical indemnity plans (whether insured or self-insured) had

*The federal and state governments may also regulate the plans they offer to their employees; such coverage is considered employment-based.

prescription drug benefits, but half did not cover any prescription contraceptives and only one-third covered oral contraceptives.[5] Although some types of managed care plans, notably HMOs, were more likely than indemnity plans to cover contraceptives, only four in 10 HMOs included a full range of reversible prescription contraceptive methods (the three-month injectable, implant, IUD, diaphragm and oral contraceptives). Plans were more likely to cover surgical reproductive health care (i.e., sterilization and abortion) than contraception.

Publicity generated by advocacy groups and the media and decisions by governments, employers and insurers have contributed to what has seemed, anecdotally, to be a trend toward increased contraceptive coverage during the past decade. In fact, one of the government's public health goals included in Healthy People 2010 is to "increase the proportion of health insurance policies that cover contraceptive supplies and services."[6]

Since 1998, 21 states have mandated that private-sector insurers cover prescription contraceptives and related services if they cover other prescription drugs or devices and other outpatient services, respectively.*[7] These 21 states account for more than half of the nation's population overall and of women of reproductive age.[8] Yet because state mandates do not apply to self-insured plans, they likely affect only about one-quarter of women covered by employer-sponsored plans. Moreover, even if state mandates require coverage of a service, drug or device, insurers may restrict access to it in several ways, such as through high out-of-pocket expenses for enrollees.

Since 1999, the federal government has required that contraceptive coverage be included in the Federal Employees Health Benefits Program. This requirement applies to coverage for millions of federal employees and their dependents, and has set an example for other employers. For several years, Congress has considered nationwide legislation requiring that all private-sector insurers, including self-insured plans, provide contraceptive coverage on par with other prescription drugs and devices.[9] So far, however, no nationwide legislation has been enacted.

In December 2000, the U.S. Equal Employment Opportunity Commission found that the failure of employers to include contraceptives in prescription drug coverage constitutes sex discrimination under Title VII of the Civil Rights Act.[10] And in June 2001, a district court ruled that excluding prescription contraceptives from an otherwise comprehensive prescription drug plan is illegal.[11] Although these two decisions technically apply only to the specific employers named in the complaints, they may influence insurance-purchasing decisions of employers unwilling to risk similar lawsuits.

Several national studies have assessed the level and extent of employment-based contraceptive coverage in the past few years. In a 1997 study for the Partnership for Prevention, 45% of employers' most popular health plans covered contraceptive drugs and 35% covered contraceptive devices.[12] In studies conducted by the Henry J. Kaiser Family Foundation and the Health Research and Educational Trust, 78% of insured workers had coverage for oral contraceptives in 2002—up from 64% in 2001—and levels of coverage were substantially lower among plans sponsored by small employers than among those sponsored by large employers.[13] These findings, however, cannot be used to determine trends in coverage, because substantial differences in methodology preclude direct comparison with results of the 1993 AGI study.

In this article, we analyze trends in coverage of reversible contraception among employment-based insured managed care plans since 1993 and estimate the impact of state mandates. This information will help policymakers to assess the extent of coverage and the potential value of mandates and related policies. In particular, trend data are needed to assess progress in meeting the U.S. health goal for 2010. Furthermore, accurate and up-to-date information about the extent of contraceptive coverage and the role of mandates will better inform the opinions and decisions of employers, insurers, the media, advocacy groups and the public.

METHODS

Sample

Our survey and methods were modeled on those used in 1993,[14] with some amendments because of intervening changes in the U.S. insurance industry. For the 2002 survey, we listed all U.S. insurers providing employment-based insured health coverage, using directories of health plans from the American Association of Health Plans (now known as America's Health Insurance Plans)[15] and the Blue Cross/Blue Shield Association.[16] After conducting telephone and Internet research, we excluded companies that provided only dental or vision plans, covered only Medicaid or Medicare beneficiaries, or did not actually write insurance policies. The final list contained 830 insurers that we considered probably functional and applicable to the study.

To maximize the proportion of "covered lives" represented by the sample and to facilitate comparisons between plans available in states with and without mandates, we stratified insurers by enrollment size (those with 100,000 enrollees or more and those with fewer than 100,000 or an unknown number of enrollees) and location (coverage only in states with mandates, only in states without mandates or in both types of states). Our sample was designed to include all large insurers (those with at least 100,000 enrollees), all insurers operating only in states with mandates and a one-in-four random sample of remaining insurers. Sampled insurers that operated both in states with and in states without mandates were randomly assigned to answer the questions about policies written in only one type of location and were therefore classified according to the mandate status of the location for which they responded. In all,

*State mandates also typically, but not always, apply to individual plans and plans provided to state employees. The 21 states are Arizona, California, Connecticut, Delaware, Georgia, Hawaii, Illinois, Iowa, Maine, Maryland, Massachusetts, Missouri, Nevada, New Hampshire, New Mexico, New York, North Carolina, Rhode Island, Texas, Vermont and Washington. The Texas law was effectively repealed, beginning in 2004.

we included 492 insurers in the final sample.

In August 2001, when the sample was drawn, 15 states had comprehensive contraceptive coverage mandates actually in place.* Two states (Minnesota and Oklahoma) were reportedly interpreting their insurance regulations to require that some, but not all, private insurers cover prescription contraceptives;[17] therefore, we excluded plans in these two states from our comparisons of plans in states with and without mandates.

Our original study design included a separate component for obtaining data on self-insured plans from companies that administered such plans. During survey fielding, however, the response rate from companies with relevant information was extremely low. Moreover, most of the administrators of self-insured plans said that they could not generalize about such plans because coverage decisions were made by individual employers. Thus, we decided to exclude self-insured plans from the study.

Fielding

In October 2001, we mailed questionnaires to the medical directors of all 492 insurers in the sample.† We sent follow-up postcards and then a second mailing of the questionnaire to all nonrespondents in November 2001; extensive efforts were also made to contact nonrespondents by telephone. Still, the response rate was extremely low. Hence, after consulting industry experts, we created a substantially abridged version of the questionnaire, mailed it in March 2002 to nonrespondents and continued with extensive telephone follow-up. We concluded the fielding in June 2002. This article presents only information from questions included in the abridged questionnaire.

During fieldwork, we excluded 107 sampled insurers because they had merged with other insurers, were no longer operating or did not provide employment-based insured health coverage. (We estimated that these 107 sampled insurers represented 188 insurers on the original list, thereby reducing the revised total number of insurers to 642.) Of the 385 remaining, applicable insurers in our sample, 205 replied, making the response rate 53%. According to results of chi-square tests, the response rate was significantly higher among applicable insurers categorized as small or of unknown size (62%) than among those classified as large (46%). Response rates were not significantly different between plans in states with a mandate (56%) and those in states without one (51%).

In our sample, large national companies were represented numerous times by state or regional branches listed separately in the directories of insurers. We had assumed that each branch would independently make decisions about the services it covered. During fieldwork, however, five large companies (accounting for 117 of the insurers in our sample) informed us that their responses applied to all branches of their company. In each case, we confirmed with the national or regional medical director that coverage decisions in insured plans were indeed made nationally and did not vary across localities. We classified these insurers as having a "nationally determined" coverage policy. The remaining respondents, who reported independently about services covered, were classified as having a "locally determined" coverage policy. To assess whether any of these insurers in fact had nationally determined policies, we reviewed our list of applicable insurers and identified four additional companies represented among our respondents with at least four branches each. Branches from one company told us that decisions were made locally, and branches from the other three companies all gave different responses. Hence, we considered the coverage decisions of these insurers to be locally determined.

Possible biases in response may have occurred for a number of reasons. Insurers that inadequately covered reproductive health services may not have wanted to complete our questionnaire. But when we asked insurers their reasons for refusing to respond, very few said that the purpose or topic of the survey prevented them from completing it. Rather, they commonly reported that they were following company policy not to complete surveys or did not have time. Another potential problem is inaccurate response: Insurers could have felt it was in their best interest to report a high level of coverage. The anonymity of the survey, however, should have eliminated much of this incentive. An additional potential source of bias comes from the fact that five states (Arizona, Massachusetts, Missouri, New York and Washington) had mandates that went into effect, were enacted or were about to be enacted while the survey was in the field. Survey participants operating in these states may have made coverage decisions as if the mandate were already in effect, thereby obscuring the difference between plans in states with mandates and those in states without.

Survey Instrument

The survey asked a series of identical questions about HMO, PPO and POS plans. (Questions about indemnity coverage were excluded from the abridged questionnaire because such coverage constituted only 3% of the insured market in 2002.[18]) Of the 205 respondents, 58% reported that they offered all three types of managed care plan, 25% that they offered two types and 17% that they offered only one type. A total of 200 insurers provided information for HMO plans, 155 for PPO plans and 140 for POS plans.

For each type of plan, we asked if various services and supplies were covered when considered medically necessary or appropriate by the health care provider, covered only when additional requirements were met (i.e., when the provider supplied additional specific medical justification)

*California, Connecticut, Delaware, Georgia, Hawaii, Iowa, Maine, Maryland, Nevada, New Hampshire, New Mexico, North Carolina, Rhode Island, Texas and Vermont. Although Texas had enacted a comprehensive mandate in 2001 that was due to go into effect in January 2002, we included this state in the list, because it had a long-standing regulation mandating the coverage of oral contraceptives.

†We sent the survey to medical directors because, although they may not be responsible for making coverage decisions, we believed that they would be aware of such decisions, and in 1993, they were most likely to be the respondents. In 1993, the survey was addressed to the company chief executive officer.

or not covered at all. Unless otherwise noted, the term "coverage" in our findings refers to the first category. The list of services and supplies included 10 items related to reversible contraception, five related to other reproductive health care and two to general care.

Insurers were informed that all the questions pertained to their "typical" policy, contract or product written in the previous month for employment-based coverage only. We defined "typical" as "that which represents the coverage written for most of the lives covered under each policy type." Some covered lives, and perhaps many, are not represented by these typical plans.

Statistical Analysis

Data were weighted to represent all 642 health insurers nationwide and to account for the variation in sampling and response rates among insurers in each stratum. We compared insurance plans in states that had a mandate with those in states without a mandate, and also with plans determined locally in states without a mandate. We used the *svy* series of commands in Stata 7.0 to calculate group means and standard errors that take into account the survey structure, and to perform t-tests to assess significant differences (at $p<.05$) between groups of plans and between coverage levels in 1993 and in 2002 for plans of each type.

We also estimated an overall coverage level for each service by combining the coverage data for all plan types (HMO, PPO and POS in 2002 and these three plus indemnity in 1993) and weighting the percentage of insurers covering a service by the national market share of covered lives for that plan type. In 1993, indemnity plans accounted for 29% of covered lives in the entire market of insured health plans; HMOs, 41%; PPOs, 16%; and POS plans, 13%. In 2002, HMOs accounted for 38% of covered lives in the insured managed care market; PPOs, 39%; and POS plans, 22%.[19] Differences in coverage between 1993 and 2002 for all plans were calculated and tested for significance using t-tests.

To test whether the exclusion of indemnity plans in 2002 affected our calculation of overall plan coverage, we conducted a sensitivity analysis by assuming that coverage for reproductive health services under indemnity plans remained unchanged between 1993 and 2002. Adding the 1993 coverage levels for indemnity plans, weighted by the 3% market share of indemnity plans in 2002,[20] we recalculated the overall level of coverage for each service or supply. The revised percentages were only 1.5–2.5 points lower than the reported 2002 percentages for coverage of reversible contraception and less than two points lower for all other services. In all cases, the recalculated 2002 percentages would continue to be significantly different from the 1993 percentages.

Finally, we estimated the relative contribution of different factors (including state mandates) to the change in coverage between 1993 and 2002 among all plans for the two most commonly used reversible prescription methods of contraception: oral contraceptives and the three-month injectable.[21] Although results from this analysis suggest causation, they do not allow us to determine it definitively—for example, changes associated with contraceptive coverage mandates may also be linked with political, legal or economic factors that differ between states with and without mandates.

TABLE 1. Percentage of employment-based insured health plans that routinely cover specific services or supplies, by plan type, 2002 and 1993

Service or supply	2002				1993				
	All†	HMO (N=200)	PPO (N=155)	POS (N=140)	All†	Indemnity (N=74)	HMO (N=105)	PPO (N=71)	POS (N=41)
Reversible contraception									
Diaphragm	83.3*	90.6*	79.5*	77.5*	33	15	52	17	30
Diaphragm fitting	96.7*	98.0*	95.1*	97.5*	49	21	81	23	46
Implant removal	78.2*	73.2*	74.3*	93.9*	46	32	58	33	54
Injectable, 1-month	89.0	88.3	90.3	87.9	u	u	u	u	u
Injectable, 3-month	94.6*	95.0*	94.5*	94.2*	57	39	74	35	72
IUD	93.8*	91.4*	95.5*	94.8*	32	18	47	21	33
IUD insertion	96.4*	95.9*	96.4*	97.3*	53	26	86	25	46
IUD removal	95.9	95.2	96.0	96.8	u	u	u	u	u
Oral contraceptives	96.5*	97.4*	95.4*	96.8*	59	33	84	41	60
Emergency contraceptives	92.5	92.1	91.2	95.3	u	u	u	u	u
Four leading methods‡	92.0	92.9	90.6	93.0	u	u	u	u	u
Five leading methods§	86.4*	86.2*	86.4*	86.7*	28	15	39	18	33
No leading method	1.8*	1.3*	2.2*	2.1*	28	49	7	49	19
Other reproductive care									
Annual gynecologic exam	99.9*	100.0	100.0*	99.5*	77	49	99	64	88
Tubal ligation	89.4	95.2*	78.5	98.5*	87	86	86	86	90
Vasectomy	89.4	95.2*	78.5	98.5*	87	85	88	86	90
Surgical abortion††	86.9*	83.0*	89.6*	88.8	70	66	70	67	83
Medical abortion	86.5	82.6	89.2	88.6	u	u	u	u	u
General									
Prescription drugs	98.9*	98.8*	99.1	98.9*	93	97	89	99	92
Prescription devices	95.4*	93.4*	96.6	96.5	89	92	83	94	95

*Differs significantly from percentage in 1993 at $p<.05$. †Weighted average, calculated using market share of covered lives for each plan type. ‡Diaphragm fitting, three-month injectable, IUD insertion and oral contraceptives. §The four leading methods plus the one-month injectable in 2002, or the implant in 1993. ††Dilation and curettage or suction aspiration. *Notes:* All data are weighted; Ns are unweighted. Some responses were missing for some services (4–10 in 2002 and 2–16 in 1993). Percentages in 1993 were rounded. u=unavailable. *Source:* For 1993 data, see reference 1.

RESULTS

Levels of Coverage

Coverage of reversible contraception in 2002 was high: Overall, almost every service and supply was covered by at least 89% of typical plans (Table 1). Exceptions to this range were for the diaphragm (83%) and for implant removal (78%).* All three plan types had similar patterns of coverage. Furthermore, 92% of all typical plans covered services related to the four leading reversible prescription methods that were available and asked about in both 1993 and 2002—diaphragm fitting, three-month injectable, IUD insertion and oral contraceptives.†

*Because the implant had been withdrawn from the U.S. market by the time of the 2001–2002 survey, this article excludes coverage of that device or its insertion; however, coverage of its removal is included, because that may still be necessary for some women.

†Postcoital emergency contraceptives are not considered a leading method because they are not a method of ongoing contraception.

TABLE 2. Percentage of employment-based insured health plans that routinely cover contraceptive services or supplies, by plan type and mandate status, 2002

Service or supply	HMO			PPO			POS		
	Mandate (N=82)	Nonmandate		Mandate (N=61)	Nonmandate		Mandate (N=60)	Nonmandate	
		Total (N=99)	Locally determined plans (N=41)		Total (N=78)	Locally determined plans (N=22)		Total (N=65)	Locally determined plans (N=14)
Diaphragm	94.7	88.9	74.5*	76.0	83.4	78.7	71.3	87.6	84.9
Diaphragm fitting	98.8	97.4	94.0	100.0	94.8*	81.1*	98.4	96.9	90.6
Implant removal	80.0	70.6	68.2	78.3	72.8	75.0	95.1	92.7	78.6
Injectable, 1-month	91.8	86.4	67.6*	93.8	89.0	60.4*	89.4	87.3	62.4*
Injectable, 3-month	97.7	93.6	84.9*	100.0	92.7*	73.9*	96.8	93.1	80.0
IUD	97.6	88.9*	74.5*	98.4	94.8	81.1*	95.1	95.0	84.9
IUD insertion	100.0	94.1*	86.4*	98.4	95.4	83.3	98.4	96.9	90.6
IUD removal	98.2	93.7	85.5*	98.4	94.8	81.5*	98.4	96.2	88.5
Oral contraceptives	100.0	96.3	91.1	100.0	93.9	77.8*	100.0	96.2	88.5
Emergency contraceptives	95.8	90.3	76.7*	93.8	92.2	70.6*	96.7	95.1	85.6
Four leading methods†	98.2	90.6*	77.5*	98.4	89.5*	61.4*	95.9	92.2	75.9
Five leading methods‡	91.6	83.5	60.7*	92.2	85.8	47.1*	86.9	86.8	59.0*
No leading method	0.0	1.9	4.3	0.0	3.3	11.6	0.0	3.0	9.0

*Differs significantly from percentage for plans in states with mandates at p<.05. †Diaphragm fitting, three-month injectable, IUD insertion and oral contraceptives. ‡The four leading methods plus the one-month injectable. *Note:* All data are weighted; Ns are unweighted. For some services, 1–6 responses were missing.

For comparison, we examined coverage of other reproductive and general health care services. Annual gynecologic exams were almost universally covered, and the majority of plans covered male or female sterilization (89%) and surgical or medical abortion (87%). According to write-in comments, however, some of the insurers reporting that abortion was covered narrowly interpreted this to mean when a pregnancy threatens a woman's health. Prescription drugs in general were almost universally covered, whereas prescription medical devices in general were covered in 95% of plans.

Coverage of reversible contraception increased substantially between 1993 and 2002 (Table 1). Overall, coverage for specific methods was 32–59% in 1993, compared with 78–97% in 2002. The largest increases were in the coverage of the IUD (from 32% coverage to 94%) and the diaphragm (from 33% to 83%). The smallest increase was in the coverage of oral contraceptives—from 59% in 1993 to 97% in 2002.

Only 28% of typical plans in 1993 covered the four leading reversible prescription methods plus the implant, whereas 86% of plans in 2002 covered the four leading methods plus the one-month injectable—a 211% increase. Some 28% of plans in 1993 covered none of the five methods, compared with 2% in 2002.

Coverage increased substantially in each type of managed care plan between surveys—especially among PPOs—such that the differences among plan types in 1993 virtually disappeared by 2002. Even HMO coverage, which was moderate to extensive in 1993, increased by 12–94% for specific methods in 2002. The percentage increases for PPO and POS coverage were even more dramatic: 125–368% for PPOs and 31–187% for POS plans. Coverage of the five leading reversible methods increased by 121% for HMOs, 380% for PPOs and 163% for POS plans.

By comparison, annual gynecologic exams (already almost universally included in HMOs in 1993) increased significantly among POS and PPO plans. Overall coverage of sterilization did not change significantly between 1993 and 2002, although it increased slightly in HMO and POS plans. Coverage of surgical abortion increased significantly—overall, and among HMOs and PPOs. Coverage of general prescription drugs and devices also increased slightly from the already high levels in 1993, particularly among HMOs.

Contraceptive Coverage Mandates

To better understand some of the changes in contraceptive coverage observed between 1993 and 2002, we investigated the role of contraceptive coverage mandates by comparing plans in states that had mandates with plans in states without mandates, taking into account the fact that nationally determined plans span both types of states.

Coverage of reversible contraception was very high in states with mandates in 2002, although it seldom was 100% (Table 2). Oral contraceptives were the only service universally covered among typical plans of all types. Some gaps in coverage were substantial: The diaphragm was covered by only 76% of PPOs and 71% of POS plans, and implant removal by only 80% of HMOs and 78% of PPOs (although many plans included the service with additional requirements—not shown).*

Coverage of the four leading reversible prescription methods was significantly more common in states with mandates than in states with no mandate for HMOs (98% vs. 91%) and PPOs (98% vs. 90%). However, differences were

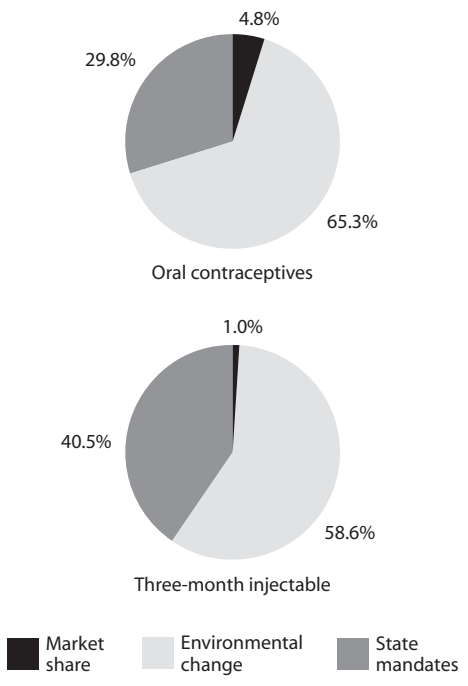
*Because a few plans did not cover drugs and devices in general, they were exempt from state mandates. After adjustment of the data to account for these plans, the largest difference was only 1.1 percentage points: Among typical HMOs in states with mandates, 98.7% that covered prescription devices in general also covered the supply of the IUD, compared with 97.6% overall.

not significant for most individual methods. Some of the similarity between plans in states with and without mandates is because 58% of the plans in states with no mandate were nationally determined. For these plans, the influence of state mandates extends to states without a mandate: Nationally determined plans that operate both in states with and in states without mandates will provide coverage everywhere in accordance with the mandates. In 2002, nationally determined plans almost universally covered reversible contraception. The only services not covered by 100% of nationally determined plans were the diaphragm (covered by 82% of PPOs and 76% of POS plans) and implant removal (covered by 74% of HMOs and 73% of PPOs—not shown).

Locally determined plans in the absence of a mandate were significantly less likely than those in states with mandates to cover the five leading methods; the proportions were 61% vs. 92% for HMOs, 47% vs. 92% for PPOs and 59% vs. 87% for POS plans (Table 2). Similar results were observed for seven of the 10 individual contraceptive services and supplies among HMOs and PPOs. Only differences in coverage of the one-month injectable were significant for all three plan types; this method was the least commonly covered by locally determined plans in states with no mandate. In addition, a sizable minority of PPO and POS plans determined locally in the absence of mandates covered none of the reversible methods studied (12% and 9%, respectively).

Nevertheless, locally determined plans in states with no mandates covered contraceptives at higher rates than did typical plans overall in 1993. Coverage of the five leading methods was 56% higher among locally determined HMOs unaffected by mandates in 2002 than among HMOs overall in 1993; the increase in coverage of the five leading methods was 162% for PPOs and 79% for POS plans.

FIGURE 1. Estimated percentage of 1993–2002 change in employment-based insured coverage of oral contraceptives and the three-month injectable attributable to various factors



Note: Percentages are for all plans and may not total 100% because of rounding.

Factors Affecting Increases in Coverage

Many factors have likely contributed to the changes in contraceptive coverage since 1993. We attempted to estimate the contribution of two such factors—changes in market share among plan types (primarily the shift away from indemnity coverage and the increase in PPO and POS coverage) and the adoption of state contraceptive coverage mandates—to the increase in coverage of oral contraceptives and the three-month injectable in the insured market between 1993 and 2002. We grouped the remaining, unmeasured factors as "environmental change"; these included national-level policy and court decisions, a general increase in coverage of prescription drugs and preventive services, and the growing attention given to contraceptive coverage issues by the media.

We estimated the contribution of these factors to the increase in coverage of the two methods among all plans between 1993 and 2002 by calculating hypothetical coverage levels for two different scenarios. In the first scenario, we estimated the contribution of market change by assuming that the only change between the two years was the market share of each plan type; thus, we weighted the 1993 coverage level for each plan type by its 2002 market distribution. In the second scenario, we estimated the contribution of environmental change, by assuming that in addition to market change, plans adopted the coverage levels found among plans of each type in the absence of state mandates; thus, we weighted the 2002 coverage levels for each plan type for locally determined plans written in states without mandates by the 2002 market share of each plan type. We attributed the difference between this coverage and the actual coverage among all plans in 2002 to the influence of state mandates.

For oral contraceptive coverage, which increased from 59% to 97% between 1993 and 2002, the change in market share among plan types alone would have increased coverage by two percentage points in 2002, accounting for 5% of the overall increase between 1993 and 2002 (Figure 1).* Environmental change would have increased coverage by an additional 24 points, representing 65% of the overall increase. The remaining 30% of the overall increase was assumed to represent the impact of contraceptive coverage mandates (including the influence of nationally determined plans in states without mandates).

For the three-month injectable, coverage of which increased from 57% to 95% between 1993 and 2002, changes in market share alone would have increased coverage by one percentage point (or 1% of the overall increase) and

*Calculated as (60.8 – 59.0)/(96.5 – 59.0) x 100 = 4.8%.

environmental change, 21 points (or 59% of the overall increase). The remaining 40% of the overall increase was assumed to represent the impact of state mandates.

DISCUSSION

Coverage of reversible contraceptive services and supplies among typical employer-sponsored insured plans was very high in 2002 and has improved dramatically since 1993. Plans in 1993 were just as likely to cover no leading reversible prescription method as they were to cover all the available methods (28% for each). By 2002, coverage of a full range of methods had more than tripled (to 86%), whereas coverage of no main method had become uncommon (2%). Moreover, large disparities in coverage according to method type and plan type had all but disappeared. Using a different methodology from ours, other researchers have concurred that high levels of coverage of reproductive health services are a reality.[22] Our methodology, however, likely masks lower levels of coverage among some groups of plans, such as those sponsored by small employers.

Many factors undoubtedly played a role in the sharp increase in contraceptive coverage in the insured market between 1993 and 2002. We have shown that the shift toward managed care was not a major factor in this trend. Guaranteed coverage for federal employees, sex discrimination decisions and heightened publicity all had a nationwide scope and were part of overall "environmental change" in the United States, which we estimated to account for more than half of the increase.

The impact of contraceptive coverage mandates in effect at the beginning of this study in 15 states seems clear: In 2002, plans in states with mandates were more likely than locally determined plans in states without mandates to cover a full range of contraceptives and to cover most of the specific methods. In addition, nationally determined plans reported nearly universal coverage of reversible contraceptives, indicating that state mandates have an impact beyond state borders. Between 1993 and 2002, contraceptive coverage mandates were estimated to account (directly and through nationally determined plans) for 30% of the increase in coverage for oral contraceptives and 40% of that for the three-month injectable. These findings may underestimate the impact of mandates because five additional states were in the process of enacting or implementing mandates while the survey was in the field.

It is not merely the increase in coverage overall that is valuable to women and their partners; it is also the increase in choice among methods. By covering a wide range of contraceptive methods, plans may enable women to choose the method that is best suited to their needs; by doing so, plans may help them to use contraceptives correctly and more consistently, and hence reduce unintended pregnancy. Thus, it is worrisome that when plans were not governed by mandates, they were less likely than plans that were (directly or indirectly) to cover a full range of methods.

These gaps were most glaring among PPOs: Fewer than half of typical PPOs that were locally determined and operating in states without mandates covered the five leading methods of reversible contraception, and 12% covered none of them. Notably, PPOs account for almost four in 10 enrollees in employment-based insured plans, and their market share has been growing consistently during the past decade.[23]

In the absence of mandates, plans displayed greater disparities in the coverage of individual methods. Gaps were particularly glaring for coverage of the one-month injectable. That method, which was introduced in 2000, was the least likely of the methods studied to be covered by locally determined plans in states with no mandate, possibly indicating that such plans are slow to include new methods. Another possibility, in view of the particularly important impact that mandates appear to have had on coverage of the three-month injectable, is that plans resist covering methods with relatively high up-front expenses. Given the spate of methods approved since we fielded this survey—including a contraceptive patch and a contraceptive ring—either reason would be a notable concern.

Although mandates have been enacted in 21 states, nearly half of all women of reproductive age live in states that do not have mandates.[24] As advocates work to institute mandates in those states, they need to address one of the inherent limitations of this approach. By federal law, state mandates cannot reach the roughly half of Americans with employer-based coverage who are enrolled in self-insured plans.

This issue is best addressed at the federal, rather than state, level, where legislation or nationally enforceable court or administrative decisions would be able to assure coverage to individuals enrolled in self-insured plans. In the final analysis, however, the only way to guarantee affordable coverage of reversible contraceptives, and other reproductive health services, may be to include them within a national health insurance program—a critical solution, but one that history has shown to be elusive at best.

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Acknowledgments

The authors thank April Fehling, Lawrence B. Finer and Terry Tropin for assisting in the questionnaire design; Jennifer Swedish for providing research assistance; and Cory L. Richards and Susheela Singh for reviewing drafts of the article and for their advice and guidance throughout the project. This article and the research on which it is based were supported by grant FPR00072 from the U.S. Department of Health and Human Services.

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