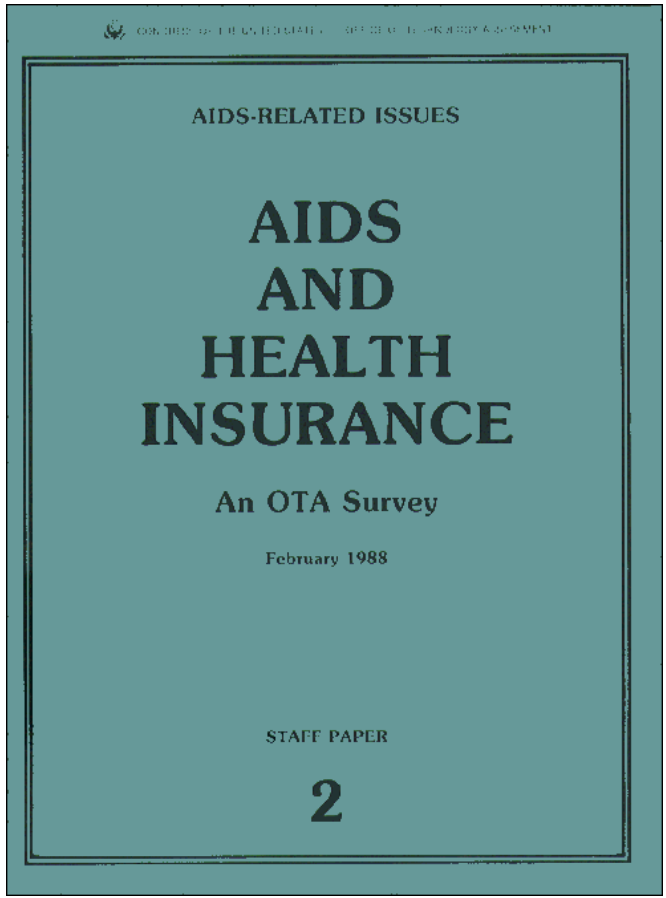
AIDS and Health Insurance: An OTA Survey

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AIDS
and
HEALTH INSURANCE

An OTA Survey

by

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Insurance testing for HIV (human immunodeficiency virus) infections has generated much controversy and disagreement among insurers, insurance regulators, insurance applicants, legislators, and other policy makers. Yet, there is little information on who insurers test and what tests they require. This survey is therefore an attempt to provide a view of HIV testing in the context of other routine tests required by health insurers and had a twofold purpose: 1) to collect basic information on underwriting practices and the use of medical screening by health insurers; and 2) to document how health underwriters are responding to the AIDS epidemic.

This survey was conducted as part of an Office of Technology Assessment (OTA) assessment on medical testing and health insurance that will be published at a later date. OTA is also monitoring AIDS-related developments for the U.S. Congress, and the survey results are being published by OTA as the second in a series of Staff Papers on AIDS-related issues.

Background

About 14.5 million non-Medicare individuals and their family members have health insurance without the benefits of group membership. These are the principle individuals that must meet underwriting standards to obtain health coverage, and their insurers were the focus of the OTA survey. Commercial companies insure 9.3 million; Blue Cross and Blue Shield (BC/BS) plans, 4.2 million; and Health Maintenance Organizations (HMOS), 1 million.

In order to evaluate an individual's insurability, health insurers ask pertinent questions regarding the applicant's medical history, gather information on the applicant's past and current medical condition through statements and records provided by the applicant's attending physician, and in selected instances, require the applicant to undergo a physical examination and medical testing. AIDS antibody testing, which, when positive, reflects infection with the AIDS virus, is considered by insurers to be a logical and essential component of this overall risk assessment.

The survey was sent to 88 commercial insurers who comprise 70 percent of the commercial, individual health insurance market; to 15 of the 77 BC/BS plans; and to the 50 largest local and national HMOS in the United States. Seventy-three of the eighty-eight commercial insurers responded, although only 62 met the survey requirements; approximately 57 percent of the commercial, individual health insurance market is represented in the survey findings. All 15 BC/BS plans completed the survey, and 39 of the 50 HMOS responded, but only 16 reported that they allow individually underwritten enrollment. Overall, 83 percent of the commercial carriers, BC/BS plans, and HMOS that were surveyed responded.

Survey Results

Medical and Other Factors in Risk Classification

There are three basic outcomes of risk classification: the applicant is covered on a standard or substandard basis, or not at all. Almost three-quarters of individual applicants for commercial health coverage are classified as "standard" by the responding insurers and can purchase a policy without extra premiums

or special limitations. Twenty percent are rated as "substandard" and issued policies that exclude preexisting medical conditions, have a higher than standard premium, or both. The exclusion may be for a specific condition, such as gallstones, or for an entire organ system, such as reproductive disorders. Finally, 8 percent of applicants are judged uninsurable and denied coverage. Most serious diseases are uninsurable, including severe obesity, diabetes mellitus, emphysema, alcoholism, coronary artery disease, cancer, schizophrenia, and AIDS.

Risk classification by the responding BC/BS plans is similar to the commercial approach except for four "open enrollment" plans that accept all applicants regardless of health status. The respondents accept 83 percent of individual applicants as standard, 9 percent with substandard policies, and deny coverage altogether to 8 percent.

HMO risk classification differs from the o the rs. Federally qualified plans are restricted to either accepting applicants at a community rate or denying membership altogether. As a result, exclusion waivers and substandard premiums are not common. The responding HMOS, however, were no more willing to underwrite high-risk applicants than the commercial insurers or BC/BS plans. They accept 73 percent on a standard basis and deny membership to 24 percent of individual applicants.

Other factors besides ill health can seriously hamper access to commercial health coverage by individual applicants and their family members. Dangerous health habits (e.g., drug abuse), illegal or unethical behavior (e.g., criminal business practices), age, occupation, and financial status were most commonly cited by commercial insurers as critical to determining insurability. Healthy habits, such as non-smoking, were also rated as important, an indication of the increasingly common use of premium credits for non-smokers. Place of residence was an important factor to a significant minority of commercial insurers, mostly due to concerns about insurance fraud known to occur in certain localities and because of regional variations in health care costs. Contrary to guidelines issued by the National Association of Insurance Commissioners (NAIC), thirteen companies use sexual orientation in underwriting and five consider it important or very important. Three companies request an attending physician statement (APS), and two order a physical exam based on sexual orientation. It is unclear how insurers ascertain an applicant's sexual preference. Most of the respondents (48/61) provided samples of their health insurance applications, none of which included any questions concerning sexual orientation or lifestyle.

In contrast, BC/BS insurability is almost purely a question of medical condition. All the responding BC/BS plans, except the four that hold open enrollment, reject some applicants in poor health. Nearly half of the plans deny nongroup applications because of alcohol or drug abuse. No BC/BS plan reported using sexual orientation in underwriting.

Access to HMO membership is fundamentally a matter of health status as well. However, age, type of occupation, health enhancing behavior (e.g., non-smoking), and sexual orientation were also considered key to insurability by 19 percent or more of the responding plans. As in the case of the commercial carriers, it is not clear how sexual orientation is identified by the four HMOS that consider it a key underwriting factor.

Sources of Medical Information

Beyond the health information provided directly in insurance applications, an APS is the most common supplemental source of information. The commercial carriers require an APS for 20 percent of their applicants. Almost three-quarters of BC/BS plans order a physician statement for at least 30 percent of their applicants, and more than half the responding HMOS require one. In fact for most applicants, in lieu of ordering a laboratory test, traditional insurers and HMOS alike usually rely on the test results reported by the applicant's physician. HIV testing is

an exception in a few cases: three responding commercial carriers require an HIV test on every applicant in areas of high prevalence, such as New York and California.

Health insurance applicants are rarely subjected to physical examinations and medical tests. Only 4 percent of applicants to the responding commercial insurers were required to have a physical exam or some type of blood and/or urine test. Just two of the BC/BS plans require physical exams, and one requires medical tests for some of its individual applicants. Only three of the HMOS sometimes require physical exams or medical tests.

AIDS Policies

Fifty-one (86°h) of responding commercial insurers either screen or plan to screen individual applicants for HIV infection; 41 do it currently and 10 plan to. The most common approach is by incorporating questions in the health history portion of the application. Asking AIDS-related questions is often less an effective screen than it is an important tool for contesting preexisting condition claims. If an applicant knowingly misrepresents his or her health condition (e. g., HIV seropositivity, recognized symptoms of AIDS, or fully diagnosed AIDS or ARC), the insurer may have grounds for denying reimbursement for the condition. An admission of AIDS, ARC, or HIV seropositivity results in immediate denial of the application. Forty-two of these fifty-one companies request a physician statement for selected applicants in order to determine the presence of AIDS symptoms or other risk factors. The APS may contain the applicant's HIV status as well. HIV testing is also quite common. Thirty-one companies routinely test individual health insurance applicants for HIV antibodies; of these, 7 test all applicants, 14 test only those considered to be "high-risk," and 10 test according to various criteria (e.g., State of residence, medical history, policy amount, etc.). All those who test use the ELISA-ELISA-Western blot series. In States and localities where HIV testing is prohibited, 17 insurers require T-Cell subset studies as a substitute.

Eleven of the responding BC/BS plans either screen or plan to screen individual applicants for AIDS exposure; of these, eight currently do, and three plan to. All eleven plans ask an AIDS-related question in their applications. If applicants answer that they have had or have been treated by a physician for AIDS or ARC, coverage is denied. As in the case of the commercial insurers, BC/BS plans ask about AIDS not only for screening purposes but also as an important means for contesting preexisting condition claims. In addition, nine of the eleven plans sometimes request an APS to help evaluate an applicant's risk for AIDS. Only one plan intends to test high-risk applicants for HIV infection.

Eight of the fifteen responding HMOS screen individual applicants for exposure to the AIDS virus. Three of the plans that do not are prohibited from doing any medical screening by State law. All the plans that screen ask an AIDS-directed question in the health history portion of their enrollment form. As in the case of the commercial insurers and BC/BS, an admission of AIDS, ARC, or HIV seropositivity results in denial of the application, and the AIDS-related questions on the application are used not only to screen, but also to contest preexisting condition claims (where allowed). Six HMOS request an APS to determine the presence of any AIDS symptoms or other risk factors. HIV testing of high-risk applicants is done by only two plans and is under consideration by a third.

AIDS Claims Experience and Cost Projections

Forty-five commercial insurers had reimbursed at least one individual policyholder for AIDS-related care. More than half of the respondents reported 10 AIDS cases or less, while 4 had reimbursed more than 50 individuals. On average, each insurer covered the care of 22 AIDS-related cases. (Of the remaining responding insurers,

six reported no AIDS-related cases, 10 were unable to report their experience, and one had recently withdrawn from the individual market.)

Twenty-one insurers provided projections of AIDS-related claims costs for 1987, forecasting total claims of $11.04 million for individual health insurance, an average of $0.53 million per insurer. Two companies did not expect any AIDS cases in 1987--both specialize in insurance for seniors--while four projected costs of $1.3 to $2.3 million for individual health policies. (Cost projections were not furnished by 40 companies.) Twenty-two insurers who had received at least one AIDS-related claim reported linking no one with a preexisting condition for AIDS; 11 found 1 to 9 percent of cases to be preexisting; 10 companies, 10 to 50 percent; and two companies, more than 60 percent.

Ten BC/BS plans reported reimbursing 3,933 subscribers for AIDS-related care, an average of 393 subscribers per plan (although one plan alone accounted for 3,000 cases). (The BC/BS plans' AIDS case and cost data reflect both individual and group policy experience.) The seven plans that never hold open enrollment reported a total of 453 AIDS-related cases, an average of 65 subscribers per plan. Three of these plans are located in areas of high AIDS prevalence, In contrast, the three plans that are continuously open (and thus never screen) reported reimbursing 3,480 subscribers for AIDS-related care, an average of 1,160 cases per plan. Two of these plans are in areas of high AIDS prevalence, and all three have held large market shares. Only five plans provided 1987 projections of AIDS-related costs. Three non-open enrollment plans (two are located in high prevalence areas) forecast a total of $29.6 million in AIDS-related claims for 1987. Claims totaling $27 million were projected by two open enrollment plans; $20 million at one plan alone. Eight of the ten plans that have identified at least one subscriber with AIDS reported finding that 1 to more than 50 percent of these subscribers had a preexisting condition for AIDS. Two of these plans, both in areas of high AIDS prevalence, connected more than half of their AIDS cases with a preexisting condition.

Twelve HMOS reported 1,468 members with AIDS or ARC, an average of 122 members per HMO. The range varied from none at two HMOS to 940 patients at one HMO. (The HMOS' AIDS case and cost data reflect their individual and group membership experience.) Only two HMOS provided projections of AIDS-related costs for 1987. One plan that had identified 10 cases during the first 10 months of 1987 forecast total costs of **$750,000** for the year; the other had 11 cases in the year preceding September 1987 and forecast total costs of $700,000 for 1987. (An additional HMO did not project 1987 costs but estimated that its diagnosed members had average lifetime costs of approximately **$35,000.) One** HMO, located in a high prevalence area, reported that more than half of its individual members with AIDS or ARC were found to have a preexisting condition. According to State law and in contrast to the other insurers, this plan was obligated to provide services for preexisting conditions (without a waiting period) unless the applicant had deliberately misrepresented his or her health status before joining the HMO.

The commercials, BC/BS plans, and HMOS reported similar plans to reduce their exposure to the financial impact of AIDS. These include reducing exposure to individual and small group markets by tighter underwriting guidelines, expanding the use of HIV and other testing, adding AIDS questions to the enrollment applications, and denying applicants with a history of sexually transmitted diseases. Two commercial insurers intend to place dollar limits on AIDS coverage in new policies, and one is introducing a waiting period for AIDS benefits. One HMO intends to withdraw from the individual health insurance market altogether, and a commercial carrier reported withdrawing from the District of Columbia. A BC/BS plan intends to lengthen the waiting period for new subscribers with a history of hepatitis, lymph disease, and mononucleosis, and two others are expanding their AIDS education efforts.

Many insurance texts describe the principles of underwriting and the underwriting process.[1] Yet, there are few or no details on whom insurers test and what tests they require. A 1986 survey conducted by the Health Insurance Association of America (HIAA) and the American Council on Life Insurance (ACLI) gathered data on screening by insurers for infections with the human immunodeficiency virus (HIV) (9). This survey, however, had two important limitations. It did not provide a view of HIV testing in the context of other routine tests required by insurers, and it included neither Blue Cross and Blue Shield (B C/BS) plans nor health maintenance organizations (HMOS), a rapidly growing health insurance sector.

In an effort to fill this gap, the Office of Technology Assessment (OTA) conducted a survey of commercial carriers and BC/BS plans in July 1987, and a survey of HMOS in September 1987. Approximately 14.5 million non-Medicare individuals have health insurance without the benefits of group membership. Commercial carriers insure approximately 9.3 million (3); BC/BS, 4.2 million (1 4); and HMOS, approximately 1 million (10,20). These are the principle individuals that must meet underwriting standards to obtain health coverage, and their insurers were the focus of the OTA survey.

The survey was developed in cooperation with HIAA, the national Blue Cross and Blue Shield Association (BCBSA), and the Group Health Association of America (G HA A), respective y. The purpose of the survey was twofold: 1) to collect basic information on underwriting practices and the use of medical screening by insurers, and 2) to document how health underwriters have responded to the AIDS epidemic.

The survey questionnaire varied little among the three target groups. Terminology was tailored to each, and some questions were modified to reflect differences in rating and enrollment practices. The survey of commercial companies is presented in Appendix A.

Overall, 83 percent of the total group of commercial carriers, BC/BS plans, and HMOS that were surveyed responded. Survey responses are summarized in table 1 and described below.

Commercial Health Insurers

The commercial health insurance survey was targeted to those firms that sell individual policies. These firms are the principal health insurers who require some applicants to undergo diagnostic testing or physical examination.[2] The survey was sent to the 88 largest individual health insurers identified by the 1985 "Bes t's L i f e - Health Industry Marketing Results" (1). These 88 companies represented 70 percent of the commercial, individual health insurance market.[3] Two insurers not found on the Best list but reported

1 **Underwriting is the process by which an insurer determines whether or not and on what basis it will accept an application for insurance.**

2 Large group health insurers may test, but only in rare cases of so-called "late applicants." Late applicants are employees who are eligible for group health insurance but choose not to sign up until after the normal enrollment period. Employees who do not participate when first eligible may later choose to join when they know they soon will have a claim. Insurers often require proof of insurability to prevent such adverse selection (8).

3 Market share calculations were based on 1985 direct premiums earned for collectively renewable, guaranteed renewable, and all other accident and health insurance.

Table 1.--Response to the Survey
Commercial Health Insurers, BC/BS Plans, and HMOS

	Commercial insurers	BC/BS plans	HMos
Total mailed questionnaires.	88	15	50
REPLIED	73 (83%)	15 (loo%)	39 (78%)
fully responded	62[a] (70%)	15 (loo%)	16[b] (32%)
omitted (not relevant).	9 (lo%)	--	23 (46%)
company liquidated	1	--	--
too late for inclusion	1	--	--
NO REPLY	15 (17%)	--	11 (22%)

[a]One of the Sixty-two responding companies had recently Withdrawn from the individual health insurance market and responded only to those questions concerning small underwritten group policies.
[b]One of the Sixteen responding HMOs does not allow individual enrollment but does accept small underwritten groups.

SOURCE: Office of Technology Assessment, 1988.

elsewhere (18) to be "leaders" in individual health were included. Two companies reported on the Best's list were never located. Thus, the survey was sent to a total of 88 companies.

It is important to emphasize that the companies were selected to target leaders in individual health rather than group-based insurance. Indeed, many of the survey participants do not sell small or large group health insurance or do so on a very limited basis.

Companies were selected for inclusion in the survey regardless of HIAA affiliation. However, letters endorsing the survey were sent by HIAA, on OTA'S behalf, to their 52 members. Companies providing confusing or incomplete data were called for clarifications.

Eighty-three percent (73/88) of the commercial insurers responded, although one response arrived too late for inclusion and nine companies issued policies that were not relevant to the intent of the survey (table 1). These nine companies sold only cancer, intensive care unit (ICU), guarantee issue, or Medigap policies and were omitted.[4] Another company had been liquidated. Nevertheless, commercial participation was high; 62 companies (70%) completed the survey in time to be included in the analysis, representing approximately 57 percent of the commercial, individual health insurance market (l). (One company had recently withdrawn from the individual health market and responded only to those questions concerning small underwritten group policies.) Response was especially strong among industry leaders. Of the 25 largest companies in 1985, 19 completed the survey (41% of the market), four

4 **Cancer insurance provides coverage only for cancer. ICU policies cover only stays in hospital intensive care units. "Guarantee issue" refers to policies sold without regard to health status. Medigap policies are aesigned as supplements to Medicare coverage for the elderly.**

were not relevant to the survey, and two did not reply.

Three health insurance populations were defined in the questionnaire: 1) **individuals** - those who seek insurance independently and without any association with an employer or membership group of any kind (also referred to as direct **pay** or non-group in the BC/BS survey and self-pay in the HMO survey); 2) individually underwritten groups - those groups that are too small to qualify for experience-rating and whose members must be individually underwritten (referred to interchangeably as **small** groups); 3) other groups - employee and other larger groups that do not require individual underwriting. Survey respondents were asked to avoid including group conversions to individual coverage or Medigap policies in their responses.

The responding companies reported receiving a total of 2.24 million applications for individual health insurance each years The annual volume of applications ranged from 700 to 325,000. The largest insurers dramatically overshadowed the others. Although 70 percent of responding companies process no more than 33,000 applications annually, six firms alone accounted for 1.2 million applications, or more than half the annual volume of the entire group (table 2).

Table 2.--Commercial Health Insurers - Annual Volume of Applicants for Individual Health Coverage

Average number of applicants for individual policies	Number of companies (n=61)	Percent of companies[a]
700-15,000	26	43 %
16,000-33,000	17	28
35,000-76,100	8	13
100,000-325,000	6	10
Not available	4	7
Total	61	100 %

[a]Percentages may not total 100 due to rounding.
Source: Office of Technology Assessment, 1988.

Blue Cross/Blue Shield Plans

There are 77 BC/BS plans nationwide, all offering some form of individual health coverage. BC/BS plans often operate under considerably different conditions from commercial carriers. Some plans hold open enrollment periods, all are regionally based, and many enjoy significant shares of their local health insurance market. These factors may play a pivotal role in underwriting policies.

Twenty-four plans (31°h), four according to State mandate, accept anyone who applies for individual coverage, regardless of health status, during certain periods of the year. Seventeen (22°/0) of these "open enrollment" plans are termed "continuous, " because they accept all applicants throughout the year (12). The implications for the underwriting process are significant. Because no individual standards of insurability are applied to open enrollment applicants, there is considerable adverse selection. In other words, people with poorer than average health expectations are more likely to apply for insurance than those with average or better health expectations. Most plans attempt to hold down premium rates for open enrollment subscribers by providing less comprehensive benefits relative to medically underwritten applicants. Others require open enrollment subscribers to pay higher premiums than underwritten applicants for identical coverage. Open enrollment coverage of high-risk applicants usually entails waiting periods before initial benefits may be paid and may impose limitations on coverage of preexisting conditions.

5 Four of the sixty-two participating insurers did not provide data on number of applications received annually.

Even though open enrollment plans never deny an application, applicants may be required to furnish evidence of their health status, including an attending physician's statement (APS). Individuals enrolling in an open enrollment program often have the option of undergoing medical underwriting, and ven a physical exam, to determine whether they qualify for a more comprehensive benefit package at a preferable rate. In addition, health information may be required by the underwriter to develop benefit limits, exclusion riders, waiting periods for preexisting conditions, or premium rates.

Unlike commercial insurers, the BC/BS plans are regional and do not sell coverage outside a particular State, metropolitan area, or region. This has particular significance vis *a vis* AIDS, not only because of the disproportionate effect of the epidemic on certain locales, but also because of State and local regulations on screening for HIV infection.

The market share of many BC/BS plans, though decreasing in recent years, has historically overshadowed that of any individual commercial carrier. In some States, as much as half the population may be BC/BS subscribers. Such a secure market position can shape underwriting policies and allow a plan, for example, to enroll high-risk applicants.

Fifteen plans were selected for the OTA survey and were chosen to ensure representative geographic distribution, variations in market share, location in areas of low and high AIDS prevalence, and differing policies regarding open enrollment (table 3). The survey was sent to the plans, on OTA'S behalf, by the national Blue Cross and Blue Shield Association along with a letter of endorsement. All 15 plans completed the questionnaire. Plans providing confusing or incomplete data were called for clarifications.

The commercial questionnaire was adapted for the BC/BS plans to include appropriate terminology and address BC/BS open enrollment and underwriting practices.[6]

Table 3.--Characteristics of the 15 Responding Blue Cross/Blue Shield Plans

Plan characteristic	Number of plans (n=15)[a]
In an area of high AIDS prevalence	5
Significant market share[b] (more than 38% share)	7
In a competitive market (20-31% share)	8
Offers continuous open enrollment	4

~ Some plans appear in more than one category. Market share data come from P. Fanara and W. Greenberg, "The Impact of Competition and Regulation on Blue Cross Enrollment of Non-Group Individuals," The Journa lof of Risk and Insurance, pp. 188-9, June, 1985.

[c] An additional plan holds open enrollment, but it is limited to certain months of the year.

Source: Office of Technology Assessment, 1988.

Health Maintenance Organizations

HMOS are health care organizations that provide comprehensive services to enrolled members for a fixed, prepaid amount that is independent of the number of services actually used. As of March 1987, there were 654 HMOS in the United States, with enrollment exceeding 27.7 million members, or more than 10 percent of the U.S. population. HMO growth has been phenomenal. From 1981 to 1986, average annual enrollment increased 20 percent, while the number of plans increased by 48 percent. Thirty-four new plans started in the first three months of 1987 alone (1 1).

6 References to "individual coverage" were replaced by "non-group/direct pay" coverage to reflect BC/BS terminology. Plans were asked to verify whether they offered continuous or non-continuous open enrollment, Question 11.B. in the commercial insurers survey (see Appendix A), which concerns the importance of non-medical underwriting factors, was split into three parts, focusing on the actual proportion of BC/BS applicants affected by medical as well as non-medical underwriting factors.

By assuming not only the insurance risk but also the responsibility for providing their members' health care, HMOS operate under significantly different conditions from either BC/BS plans or commercial carriers. Another important distinction is that while commercial insurers and BC/BS plans are governed solely by State regulations, many HMOS voluntarily adhere to Federal qualification standards as well.[7] More than half the nation's HMOS are federally qualified, and 80 percent of HMO enrollment is in federally qualified plans (1 1). Federal qualification shapes HMO insurance practices including rate-setting, risk classification, coverage, preexisting conditions, and waiting periods. It requires that if an HMO accepts non-Medicare individual members, they must be either accepted at a community rate or rejected altogether. Exclusion riders and rated premiums are prohibited. In addition, benefits for preexisting conditions must be available upon enrollment because waiting periods are not allowed.[8] Medical screening of individual applicants is permitted, however.

State HMO regulation varies. While some States give HMOS considerable latitude with respect to nongroup underwriting, others are more restrictive than the Federal HMO Act. Minnesota, for example, allows medical screening, exclusion riders and experience-rating (22). In contrast, Ohio forbids medical screening of nongroup applicants during a mandated 30-day open enrollment period each year (21).

Most industry experts believe that individual enrollment in HMOS is rare. The Group Health Association of America estimates that no more than 4 percent of non-Medicare HMO members enroll as individuals **(20).** Many of these "self-payers" are "conversions" (i.e., former group members who have converted to individual enrollment because of a change in employment or marital status). Both the Federal HMO Act Regulations (42 CFR 417.108(e)) and The Consolidated Omnibus Budget Reconciliation Act of 1985 (COBRA) (Public Law 99-272) mandate that HMOS allow group members to convert to individual enrollment without providing evidence of insurability.

No national database identifies the HMOS that accept self-paying individuals. Because OTA was not able to ascertain which HMOS accept individual enrollment, the survey questionnaire was sent to the 50 largest local and national HMOS to first inquire whether the organization enrolled individuals other than on a conversion basis and, if so, to request that the HMO participate in the survey.[9,10] Endorsement letters from GHAA were enclosed with the survey. Plans providing confusing or incomplete data were called for clarifications.

More than three-quarters of the HMOS (39/50) responded. Sixteen (320/o) reported that they met the survey requirements; of these, 15 (30°/0) accepted nongroup individuals (i.e., on a non-conversion basis) and eight (16°/0) underwrote small group members. (Note that one of the 16 responding HMOS does not allow individual enrollment but does accept individually underwritten groups.) The fact that close to one-third of the 50 largest HMOS enrolled non-conversion individuals indicates that HMOS may be playing a greater role in the individual health insurance market than previously believed.

7 **The federal Health Maintenance Organization Act of 1973, aa amended (42 U.S. C. Sec. 300e et seq.), created an HMO office within the Department of Health and Human Services to regulate HMOs through qualification and ongoing compliance requirements. In order to become federally qualified, HMOs must meet certain financial, underwriting, and rate-setting standards and provide specified medically necessary health services (6).**

8 **However, if an HMO applicant knowingly misrepresents his or her state of health, the plan may have grounds to terminate membership.**

9 **The surveyed plans were selected from "The Interstudy Edge" report of HMO membership as of March 31, 1987. Note that many of the 50 largest HMOs are national firms that may include as many as 37 local plans.**

10 **The HMO survey** instrument differed from **the commercial questionnaire in several ways. Plans were asked if the HMO (1) accepted self-paying individuals other than on a conversion basis; (2) was federally qualified or had a non-federally qualified subsidiary; (3) offered continuous or non-continuous open enrollment; and (4) had individually underwritten groups, community-rated groups, or experience-rated groups. In addition, some terminology was changed to reflect HMO practice.**

The 16 plans that completed the survey had a total of 9.2 million members and one-third of the nation's total HMO membership. Membership for these HMOS ranged from 110,000 to more than 4.9 million; several were national firms that included from 6 to 24 local plans. The 23 HMOS that responded to OTA'S letter but accepted neither non-conversion individuals nor underwritten groups had a total of 6.5 million members (1 1). Other responding plan characteristics are summarized in table 4.

Although the responding HMOS represent a substantial share of the national HMO membership, these older, established, and very large organizations are not necessarily representative of younger plans and recent entrants into the market. Small, young HMOS are less likely to enroll individuals, be federally qualified, or operated on a not-for-profit basis (1 1).

Table 4.--Characteristics of the 16 Responding HMOS

HMO characteristic	Number of HMOS (n=16)	Percent of HMOs
Federally Qualified (FQ).....	9	56 %
FQ with non-FQ subsidiary	3	19
Model Type		
Network	7	44 %
IPA	5	31
Staff	3	19
Group	1	6
Membership Types Accepted		
Self-Pay Individuals	15	94 %
Individually Underwritten Groups	8	50
Community-Rated Groups..	16	100
Experience-Rated Groups....	4	25

Source: Office of Technology Assessment, 1988.

Medical and Other Factors in Risk Classification

Commercial Health Insurers

The outcome of underwriting is risk classification, the final evaluation of whether the proposed insured will be covered on a "standard" or "substandard" basis, or not at all. Insurers were asked to list those conditions or impairments that they exclude from coverage, "rate-up" (i. e., require a more costly premium), or consider uninsurable. In general, the companies take a very similar approach to classifying risk. However, there are differences; some medical conditions or impairments that make the applicant wholly uninsurable by one insurer may just be excluded from coverage or rated-up by another. For example, although some companies are unwilling to underwrite applicants with any history of diabetes, others decline only juvenile diabetics and insure but exclude diabetes for other diabetic applicants. In some cases, severity of the condition is key. For example, if hypertension is controlled and moderate, a rated premium (i. e., more expensive) may be offered; if the hypertension is uncontrolled or severe, the applicant may be denied coverage altogether (table 5).

Most applicants for individual health coverage are classified as standard and can purchase insurance protection without extra premiums or special limitations. Three-quarters of the responding insurers (46/61) provided standard coverage to at least 60 percent of their individual applicants. In total, the responding insurers reported selling approximately 1.5 million new standard policies each year; 73 percent of their individual applicants are classified as standard (tables 6 and 7).

Substandard policies include an exclusion waiver, a rated premium, or both. About 413,000 individual applicants were offered coverage on this basis by the responding insurers, or 20 percent of completed applications.

Exclusion waivers may temporarily or permanently exclude a medical condition from coverage. The exclusion may be for a specific condition, such as gallstones, or for an entire organ system, such as reproductive disorders. Permanent waivers usually exclude from coverage chronic conditions that are moderately costly and without life - threatening implications. Temporary waivers generally involve acute conditions that are short-term in nature, such as fractures or some minor surgery. More than half of the responding insurers (35/6 1) reported that 1 to 19 percent of their individual applicants carry an exclusion waiver. Thirteen (21°/0) required exclusions for 20 to 39 percent of their applicants (table 6).

Thirty-five insurers (57%) reported that the increased risk associated with 1 to 19 percent of their applicants required a rated premium. The additional premiums usually range from 25 to 100 percent of the standard premium, although some insurers will use higher ratings (7). Thirteen companies (21°/0) never rate-up applicants. Rated conditions do not differ significantly from those that insurers may exclude; in general, higher premiums are required for chronic but moderately severe conditions (e.g., asthma, glaucoma). Whether a condition is excluded or rated is a matter of company pricing policy and strategy. Sometimes the insurer does both.

Table 5.--Risk Classification by Commercial Health Insurers

Common Conditions Requiring a Higher Premium, Exclusion Waiver, or Denial

Higher Premium	Exclusion Waiver	Denial
Allergies	Cataract	AIDS
Asthma	Gallstones	Ulcerative colitis
Back strain	Fibroid tumor (uterus)	Cirrhosis of liver
Hypertension (controlled)	Hernia (hiatal/inguinal)	Diabetes mellitus
Arthritis	Migraine headaches	Leukemia
Gout	Pelvic inflammatory disease	Schizophrenia
Glaucoma	Chronic otitis media (recent)	Hypertension (uncontrolled)
Obesity	Spine/back disorders	Emphysema
Psychoneurosis (mild)	Hemorrhoids	Stroke
Kidney stones	Knee impairment	Obesity (severe)
Emphysema (mild - moderate)	Asthma	Angina (severe)
Alcoholism/drug use	Allergies	Coronary artery disease
Heart murmur	Varicose veins	Epilepsy
Peptic ulcer	Sinusitis, chronic or severe	Lupus
Colitis	Fractures	Alcoholism/drug abuse

SOURCE: Office of Technology Assessment, 1988.

Table 6--- Commercial Health Insurers

Risk Classification of Individual Applicants

Percent of applicants	Number of companies (n=61)	Percent of companies
STANDARD		
Never Used	0	--
1 to 19%	0	--
20 to 39%	1	2%
40 to 59%	7	11
60 to 79%	26	43
80 to 100%	20	33
Not Available	7	11
Total	G	1'0%
SUBSTANDARD		
Exclusion Waiver		
Never Used	3	5%
1 to 19%	35	57
20 to 39%	13	21
40 to 592	1	2
60 to 79%	0	.-
80 to 100%	0	--
Not Available	9	15
Total	E	1370%
Rated Premium		
Never Used		13 21%
1 to 19%	35	57
20 to 39%	3	5
40 to 59%	0	--
60 to 79%	0	--
80 to 100%	0	--
Not Available	10	16
Total	E	ITO%
Exclusion Waiver and Rated Premium		
Never Used	16	26%
1 to 19%	33	54
20 to 39X	1	2
40 to 59%	0	--
60 to 79%	0	--
80 to 100%	0	--
Not Available	11	18
Total	G	ITO%
REJECTED		
Never Used	1	2%
1 to 19%	52	85
20 to 39%	1	2
40 to 59%	0	--
60 to 79%	0	--
80 to 100%	0	-.
Not Available	~	11
Total	61	ITO%

SOURCE: Office of Technology Assessment, 1988.

Most of the responding insurers (56%) noted that some policies may require an exclusion and rated premium, 1 to 22 percent of applicants are underwritten this way.

Eight percent of individual applicants were denied coverage by the responding insurers; approximately 164,000 individuals each year. Most companies (54°/0) deny coverage to less than 10 percent of their applicants; 31 percent deny coverage to between 10 and 19 percent. Coverage may be denied for serious medical reasons or "because an applicant is clearly outside a particular company's parameter of acceptable risks for occupational or financial reasons" (7). Most insurers deny any applicant whose probability of disease exceeds three times the average for his sex and age.

Insurability is not just a matter of health status; several factors are key to the underwriter's decision to deny an application, to exclude a condition, or to rate up an applicant. The survey results indicate that other factors besides ill health can seriously hamper access to health coverage for nongroup individuals and their family members (table **8).**

When asked to indicate which nonmedical underwriting factors could affect an application's acceptance, commercial insurers most commonly cited dangerous health habits (e.g., drug abuse), illegal or unethical behavior (e. g., criminal business practices), age, and occupation.

Drug abuse, and other health endangering habits, perhaps better categorized as significant predictors of health status, were considered of critical importance by 57 (93%) responding companies; indeed, many emphasized that drug abusers are uninsurable. Nearly three-quarters (44/61) of those responding also considered "illegal or unethical behavior" incompatible with insurability. This probably reflects the great sensitivity of the industry to fraud. Age and occupation, though reported by roughly one-third to be key to a proposed insured's acceptance or rejection, were more often noted to influence coverage limits or premiums.

Healthy habits, such as non-smoking, were rated "important" by more than half of the insurers (34/61), an indication of the increasingly common use of premium credits for non-smokers. Dangerous avocations, such as race car driving or hang gliding, were considered either "very important" or "important" to almost 80 percent (48/61) of those surveyed. Rather than deny coverage to applicants with risky hobbies, most underwriters choose to limit only the insurer's responsibility for related accidents.

The survey results also show that financial status plays a key role in health insurance underwriting. Sixteen percent (10/61) of those responding said financial factors alone could affect acceptance of an application; another 43 percent (26/61) considered it "important" to coverage limits and premium

Table 7.--Commercial Health Insurers

Estimate of Industry-Wide Risk Classification of Individual Applicants

Risk classification	Total number of applicants per year (n=S3)[a]	Estimated proportion
Standard	**1,525,472**	**73 %**
Substandard	**412,505**	20
Exclusion Waiver	**270,373**	**13**
Rated Premium	**108,293**	**5**
Waivered & Rated Up	**93,839**	**2**
Denied	**164,317**	**8**
TOTAL APPLICATIONS	**2,102,294**	100 %

Data were not provided by 8 of 61 insurers. The percentages in Column 2 were derived by dividing column 1 by 2.1 million. Also, percentages may not total 100 due to rounding.

Source: Office of Technology Assessment, 1988.

Table 8.--Individual Underwriting by Commercial Health
The Importance of Non-Medical Factors

Underwriting Factor (n=61)[a]	Very Important[b]		Important		Unimportant		Never Used	
	Number	Percent[c]	Number	Percent	Number	Percent	Number	Percent
1. age	23	38%	29	48%	6	10%	3	5%
2. type of occupation	18	30	29	[illegible]	11	18	3	5
3. avocation (e.g.,race car driving)	9	15	39	64	9	15	4	7
4. financial status	10	16	26	43		33	5	8
5. health endangering personal habits (e.g., drug abuse)	57	93	3	5	[illegible]	[illegible]	1	2
6. health enhancing personal behavior (e.g., non-smoking)	6	10	34	56	9	15	12	20
7. illegal or unethical behavior	44	72	13	21	2	3	2	3
8. place of residence	3	5	13	21	21	34	24	39
9. sexual orientation	1	2	4	7	13	21	43	70

[a]One company did not respond to this question.

[b]Definitions: Very Important - Critical to underwriting process; can affect acceptance/rejection.
Important - Always considered but will never by itself affect acceptance/rejection. It may, however, influence coverage limits (e.g., exclusions or waiting period) and/or premium.
Unimportant - Rarely affects acceptance/rejection, coverage limits, or premium -- unless in conjunction with other more important factors.
Never Used - Never considered.

[c]Row percentages my not total 100 due to rounding.

SOURCE: Office of Technology Assessment, 1988.

levels. Some insurers may establish minimum income requirements for certain types of medical expense policies in order to avoid early lapses caused by the insured's inability to afford the premium (7).

Many respondents reported requiring financial and personal investigations. (See "Sources of Medical Information," table 15.) Although 25 percent (15/61) of the respondents never require an investigation, 16 percent (10/61) investigate one-fourth or more of their applicants. Two companies reported that financial or personal checks are done on every individual applicant. Most commonly, these inspections are credit and motor vehicle record checks, but insurers also rely on inspection agencies to verify health information reported in the application and even information on sexual orientation (see below).

Although close to 40 percent (24/61) of the commercial insurers never use place of residence in underwriting, more than one-quarter (16/61) consider it very "important" or "important. " Another 34 percent (21/61) reported that residence may influence underwriting determinations when considered in conjunction with other more important risk factors. Several carriers noted that their concern over place of residence was due to insurance fraud that was known to occur in certain localities. Others indicated that use of place of residence in setting premiums is a result of regional variations in health care costs. Among the 31 respondents who tested for exposure to the AIDS virus, three (10%) required HIV screening of all applicants residing in areas of high AIDS prevalence.

Seventy percent (43/61) of the respondents indicated that sexual orientation is never used in underwriting. However, contrary to the 1987 National Association of Insurance Commissioners (NAIC) guidelines (16) recommending against using sexual orientation in underwriting, five companies considered it "very important" or "important" (i.e., affecting coverage, premiums, or possibly acceptance), and another 13 ranked it as "unimportant" (i.e., not affecting insurability unless present with other more important factors).[11] In addition, three companies reported requesting an APS or physical exam based on sexual orientation.

It is unclear how insurers ascertain an applicant's sexual preference. Most (48/61) of the respondents provided samples of their health insurance applications, none of which included any questions concerning sexual orientation or lifestyle. One manager of a firm which specializes in insurance paramedical exams reported seeing references to an applicant's homosexuality in attending physician statements. Three insurers, in conversations with OTA, noted using indirect approaches or inspection agencies to confirm "suspicions of homosexuality" by, for example, interviewing a proposed insured's neighbors.

Blue Cross/Blue Shield Plans

Although BC/BS plans do not screen for high-risk applicants as exhaustively as do commercial carriers, the risk classification that is used once a high-risk applicant is identified varies little from the approach used by commercial carriers. Medical conditions that commonly require a rated premium, exclusion waiver, or are wholly uninsurable by commercial insurers are similarly classified by the non-open, responding plans (see table 5).

Open enrollment programs do not classify applicants by risk in the usual sense, although they typically provide fewer comprehensive benefits and may require open enrollment subscribers to pay higher premiums than other applicants for identical coverage. Open enrollment coverage usually requires waiting periods before initial benefits may be paid for preexisting conditions and may exclude preexisting conditions.

11 In July 1987, the NAIC issued a proposed bulletin stating that "sexual orientation may not be used in the underwriting process or in the determination of insurability." At least eight States (Colorado, Delaware, Florida, Iowa, Oregon, South Dakota, Texas, and Wisconsin) have barred using sexual orientation in underwriting or in the determination of insurability, premiums, terms of coverage, or renewals (16).

Fourteen of fifteen responding plans reported receiving a total of 401,500 nongroup applications annually .12

Most applicants for direct pay (i.e., individual) coverage are classified as standard. Thirteen plans (86°/0) provided standard coverage to 60 to 100 percent of their nongroup applicants; the other two plans classified 40 to 59 percent as standard (table 9). In total, respondents reported selling approximately 332,000 new nongroup standard policies each year. Eighty-three percent of their individual applicants were classified as standard (table 10).

Each year about 37,000 nongroup applicants are offered substandard coverage by the responding plans (9 percent of those completing applications). Exclusion riders, rather than rated premiums, are more commonly used in direct pay policies. Eight plans reported requiring an exclusion for up to 39 percent of their nongroup applicants, while only four plans charged higher premiums for less than 20 percent of applicants. One continuous open enrollment plan required exclusion riders for 27 percent of its applicants.

The respondents (open and non-open combined) refused coverage to 8 percent of their direct pay applicants. Denial rates range from zero (for open enrollment plans) to thirty-five percent (table 9).

Underwriting by BC/BS plans appears to be considerably less complex than that done by the commercials. Not only is medical evaluation of applicants much less exhaustive, but also far fewer factors are weighed. The survey questionnaire asked the plans to try to quantify the effects of a number of factors on an applicant's insurability, i.e., to estimate the proportion of applicants who are either denied coverage or offered only limited coverage or an increased premium because of medical condition, age, poor health habits, place of residence, etc. (table 11).

The responses to these questions indicate that BC/BS insurability is almost purely a question of medical condition. All but the four continuous open enrollment plans reject some applicants in poor health, with medically-based denial rates ranging from 7 to 33 percent. Close to half the plans (7/15) also reported denying nongroup applications because of alcohol or drug abuse histories (table 11).13

In many BC/BS plans, regardless of open enrollment policy, any known existing disease or impairment, whether acute or chronic, may not be covered, or a waiting period may be required. Nine of the 15 plans (60°/0) used such limits because of the medical condition of 5 to 27 percent of their applicants.

Nearly three-quarters (1 1/15) of the responding plans never "rate-up" direct pay premiums because of medical condition. Of the four plans that do, 2 to 19 percent of their individual applicants are affected. All the nongroup premium rates are age-based at four plans and affected by place of residence at two plans (i.e., because of regional variations in health costs.) More than half the applicants at two other plans are given nonsmoker discounts.

No BC/BS plan reported using sexual orientation in underwriting. However, one plan did originally report modifying nongroup premiums on this basis (for 3 percent of their applicants). When questioned by OTA as to how sexual orientation is identified, the plan underwriter explained that they had interpreted the term to mean sex (i.e., male or female).

Only one respondent requested routine financial or personal investigations, inspecting 10 percent of its applicants for nongroup coverage (See "Sources of Medical Information," table 15.).

12 One plan did not furnish relevant application data.

13 BC/BS plans may deny coverage to applicants residing outside their service area.

Table 9. --Blue Cross/Blue Shield Plans
Risk Classification of Individual Applicants

Percent of applicants	Number of plans (n==15)	Percent of plans[a]
STANDARD		
Never Used	0	--
1 to 19%	0	--
20 to 39x	0	.-
40 to 59%	2	13%
60 to 79%	8	53
80 to 100%	~	33
Total	15	100%
SUBSTANDARD		
Exclusion Waiver		
Never Used	7	47%
1 to 19%	6	40
20 to 39%	2	13
40 to 59%	0	--
60 to 792	0	--
80 to 100%	—0	--
Total	15	100%
Rated Premium		
Never Used	11	73
1 to 19%	4	27
20 to 39%	0	--
40 to 59x	0	--
60 to 792	0	--
80 to 100%	0	--
Total	15	100%
REJECTED		
Never Used	3	20%
1 to 19%	7	47
20 to 39%	5	33
40 to 59%	0	--
60 to 792	0	--
80 to IOO%	0	--
Total	15	100%

[a]Percentages may not total 100 due to rounding.

SOURCE: Office of Technology Assessment, 1988.

Table 10. --Blue Cross/Blue Shield Plans
Estimate of Industry-Wide Risk Classification of Individual Applicants

Risk classification	Total number of applicants per year[a] (n=14)	Estimated proportion (column 1 + 401,475)
Standard	331,560	83%
Substandard	36,949	9
Exclusion waiver	23,660	6
Rated premium	13,289	3
Denied [b]	32,966	8
TOTAL APPLICATIONS	401,475	

[a]Data were not provided by one continuous open enrollment plan.
bDenials occur only at non-open enrollment plans; on average, these plans reject 19 percent of their applicants.

SOURCE: Office of Technology Assessment, 1988,

Health Maintenance Organizations

HMO risk classification often differs from the traditional commercial and BC/BS insurers' approaches. Federally qualified plans are restricted to either accepting non-Medicare applicants at a community rate or denying membership altogether. Exclusions, rated premiums, and waiting periods are prohibited. Some States have similar requirements. However, HMO underwriting does reflect traditional practice with respect to medically uninsurable conditions. The responding HMOS were no more willing to underwrite high-risk applicants than the commercial insurers or BC/BS plans. When asked which conditions the HMO considered uninsurable, the plans' responses mirrored those given by the traditional insurers (see table 5).

In total, 12 of 15 HMOS reported receiving approximately 57,900 self-pay (i.e., individual) applications each year and enrolling 73 percent on a standard basis. Standard acceptance rates ranged from 49 percent at one plan to 100 percent at two plans required by State law to hold open enrollment (tables 12 and 13).[14]

Only two HMOS (13%) reported enrolling individual members on a substandard basis; both required exclusion waivers for 10 to 15 percent of their applicants. (One of these plans was not federally qualified, the other was but had a non-federally qualified subsidiary.)

14 **Statistics for some national plans may represent only one locale.**

Table 11.--Individual Underwriting by Blue Cross/Blue Shield Plans
The Importance of Medical and Other Factors

Percent of non-group applicants[b]	Reject applicant		Limit coverage		Increase (decrease) premium rates (n=15)	
	Number of plans	Percent[a] of plans	Number of plans	Percent of plans	Number of plans	Percent of plans
Medical Condition						
Never Used	4	27%	5	33%	8	53%
1 to 9%	2	13	3	20	2	13
10 to 19%	4	27	4	27	2	13
20 to 29%	4	27	2	13	0	
30 to 39%	1	7	0	--	0	--
Not Applicable	0	--	1	7	3	20
Total	15	100%	15	100%	15	100%
Age						
Never Used	15	100%	14	93%	8	53%
100%	0		0	--	4	27
Not Applicable	0	--	1	7	3	20
Total	15	100%	15	100%	15	100%
Dangerous Habits (e.g., drug abuse)						
Never Used	6	40%	12	80%	11	73%
1 to 9%	6	40	0	--	0	--
10 to 19%	0	--	1	7	0	--
20 to 29%	1	7	0	--	0	
Not Applicable	2	13	2	13	4	27
Total	15	100%	15	100%	15	100%
Place of Residence						
Never Used	15	100%	14	93%	10	67%
90 to 100%	0	--	0	--	2	13
Not Applicable	0	--	1	7	3	20
Total	15	100%	15	100%	15	100%
Healthy Habits (e.g., non-smoking)						
Never Used					10	67%
50 to 69%					1	7
70 to 79%		--NA--		--NA--	1	7
Not Applicable					3	20
Total					15	100%

[a]Percentages may not total 100 due to rounding.
[b]Intervals with no reported frequency are omitted.

SOURCE: Office of Technology Assessment, 1988.

Table 12. - -Health Maintenance Organizations
Risk Classification of Individual Applicants

Percent of applicants	Number of HMos (n-15)	Percent of HMos[a]
STANDARD		
Never Used	o	--
1 to 19%	0	--
20 to 392	0	--
40 to 59%	1	7%
60 to 792	6	40
80 to IOO%	6	40
Not Available	2	13
Total	15	100%
SUBSTANDARD		
Exclusion Waiver		
Never Used	11	73%
1 to 19%	2	13
20 to 39%	0	--
40 to 59%	0	--
60 to 79%	0	--
80 to 100%	0	--
Not Available	2	13
Total	15	100%
Rated Premium		
Never Used	13	87%
Not Available	2	13
Total	15	100%
REJECTED		
Never Used	2	13%
1 to 19%	1	7
20 to 39%	9	60
40 to 59%	1	7
60 to 79%	0	--
80 to 100%	0	--
Not Available	2	13
Total	15	100%

[a]Percentages may not total 100 due to rounding .

SOURCE: Office of Technology Assessment, 1988.

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Table 13.--Health Maintenance Organizations

Estimate of Industry-Wide Risk Classification of Individual Applicants

Risk Classification	Total number Estimated of applicants proportion per year (n=12)[a]	
Standard	42,401	73%
Substandard	1,815	3
Ridered	1,815	3
Denied	13,653	24
TOTAL APPLICATIONS	57,869	

[a]Data were not provided by three HMOS.
[b]The percentages in Column 2 were derived by dividing column 1 by 57,869.

Source: Office of Technology Assessment, 1988.

Rejection rates for the responding HMOS were high relative to the commercial and BC/BS insurers. Eleven of fifteen HMOS denied membership to 20 to 59 percent of their individual applicants. In total, 12 responding HMOS refused membership to approximately 13,700 self-pay applicants annually, 24 percent of their self-pay applicants. In contrast, the commercials and BC/BS plans both denied 8 percent of self-pay applicants. It may be that HMOS receive a greater proportion of high-risk applicants because of their comprehensive coverage and community rating practices. In addition, the Federal qualification requirements and State regulations that restrict HMO use of exclusions and rated premiums may limit the ability of the plans to underwrite many individuals. Clearly, further study is warranted in order to understand these differences.

Access to HMO self-pay membership is fundamentally a matter of health status. All but three of the respondents (81%) reported that medical conditions can affect either the applicant's acceptance, premium rate, or scope of benefits. The three plans that never consider the applicant's health are located in a State that mandates HMOS to hold an annual 30 day open enrollment period (without medical screening); due to possible adverse selection, this is the only time these HMOS are willing to enroll individuals (table 14).

Age, type of occupation, health enhancing behavior (e.g., non-smoking), and sexual orientation are also considered key to insurability by 19 percent or more of the respondents. It is not clear how sexual orientation is identified by the four plans that use it in underwriting. No surveyed plan reported using personal inspection agencies, and none of the provided enrollment applications included any relevant lifestyle questions. The National Association of HMO Regulators (NAHMOR), which serves a role similar to that of the NAIC, has not yet taken a position on the appropriateness of using sexual orientation in underwriting (1 5). (See previous discussion of the NAIC recommendations.)

Sources of Medical Information

Commercial Health Insurers

The underwriter's objective is to know as much about the applicant's health status as the applicant. Any health insurance policy based on medical underwriting requires the applicant (and each family member) to complete a health history questionnaire. As evidenced by the survey responses, company policies vary considerably with respect to the proportion of applicants required to provide further evidence of their health status, either via an attending physician statement, physical exam, blood and urine tests, and/or financial or personal investigations (table 15).

Table 14.--Individual Underwriting by Health Maintenance Organizations
The Importance of Medical and Other Factors

Underwriting Factor (n=16)[a]	Very Important[b] Number of HMOs	Very Important[b] Percent[c] of HMOs	Important Number of HMOs	Important Percent of HMOs	Unimportant Number of HMOs	Unimportant Percent of HMOs	Never Used Number of HMOs	Never Used Percent of HMOs
1. medical condition	10	63%	2	13%	1	6%	3	19%
2. age	1	6	6	38	2	13	7	44
3. type of occupation	0	--	3	19	3	19	10	63
4. avocation (e.g., race car driving)	0	--	1	6	3	19	12	75
5. financial status	1	6	0	--	4	25	11	69
6. health enhancing personal behavior (e.g., non-smoking)	2	13	3	19	2	13	9	56
7 illegal or unethical behavior	0	--	2	13	4	25	10	63
8. place of residence	1	6	1	6	1	6	13	81
9. sexual orientation	0	--	3	19	1	6	12	75

[a]Includes one HMO that does not underwrite individuals but accepts individually underwritten groups.
[b]Definitions: Very Important - Critical to underwriting process; can affect acceptance/rejection.
Important - Always considered but will never by itself affect acceptance/rejection. It may, influence coverage limits (e.g., exclusions or waiting period) and/or premium.
Unimportant - Rarely affects acceptance/rejection, coverage limits, or premium -- unless in conjunction with other more important factors.
Never Used - Never considered.
[c]Row percentages may not total 100 due to rounding.

URC Office of Technology Assessment, 1988.

Table 15.--Commercial Health Insurers, BC/BS Plans and HMOs
Individual Underwriting Information Requirements

Required underwriting information (percent of applicants)	Commercial insurers		BC/BS plans (n=15)		HMOs (n=15)	
	Number	Percent[a]	Number	Percent	Number	Percent
Attending physician statement (APS)						
Never used	3	5%	2	13%	5	33%
1 to 19%	18	30	1	7	2	13
20 to 39%	25	41	8	53	1	7
40 to 59%	9	15	2	13	1	7
60 to 79%	4	7	2	13	2	13
80 to 100%	1	2	0	--	2	13
Not available	1	2	0	--	2	13
Total	61	100%	15	100%	15	100%
Physical exam						
Never used	17	28%	13	87%	10	67%
1 to 19%	35	57	1	7	1	7
20 to 39%	5	8	1	7	2	13
40 to 59%	1	2	0	--	0	--
60 to 79%	0	--	0	--	0	--
80 to 100%	2	3	0	--	0	--
Not available	1	2	0	--	2	13
Total	61	100%	15	100%	15	100%
Blood or urine screens						
Never Used	23	38%	14	93%	12	80%
1 to 19%	30	49	1	7	1	7
20 to 39%	4	16	0	--	1	7
40 to 59%	0	--	0	--	0	--
60 to 79%	0	--	0	--	0	
80 to 100%	2	3	0	--	1	7
Not available	2	3	0		0	--
Total	61	100%	15	100%	15	100%
Financial or personal investigation						
Never used	15	25%	14	93%	15	100%
1 to 19%	33	54	1	7	0	
20 to 39%	5	8	0	--	0	--
40 to 59%	1	2	0	--	0	--
60 to 79%	2	3	0	--	0	--
80 to 100%	4	7	0	--	0	--
Not available	1	2	0	--	0	--
Total	61	100%	15	100%	15	100%

[a]Percentages may not total to 100 due to rounding.
SOURCE: Office of Technology Assessment, 1988.

Attending Physician Statements. Beyond the health data provided directly in the insurance application, the APS is the most common supplemental source of medical underwriting information. Overall, the responding insurers reported requiring an APS for 20 percent of their individual applicants, a total of 446,000 physician statements each year. The APS is also clearly the insurer's principal source of testing data, since it often includes recent test results as well as X-rays, electrocardiograms, and pathology reports. (The APS usually consists of a standard form completed by the applicant's doctor. However, physicians sometimes send the insurer a photocopy of the applicant's medical record instead.) Although close to two-thirds of the respondents (38/61) require physician statements of 20 to 79 percent of their individual applicants, more than three-quarters (47/61) test only 5 percent or less. Therefore, testing done at the physician's request appears to be as critical to insurability as tests ordered by the insurer (tables 15 and 16).

There are a number of factors that lead the underwriter to require an APS. These are listed, in table 17, along with the number of survey respondents who use them as routine APS "triggers." The medical history revealed in the insurance application is the most common trigger; it was cited by every responding company that ever requires an APS. Seventy percent indicated that reports from the Medical Information Bureau (MIB), a databank of underwriting information shared by commercial insurers,[15] routinely trigger APS requests; 65 percent, that inspection reports (i.e., background checks) triggered a request for an APS; and 78 percent, that a history of drug abuse triggered APS requests. Older applicants are commonly required to provide further evidence of good health; 57 percent of the companies reported that APS requests are age-based. It is not surprising that older applicants are more closely scrutinized, as they are more likely to have health problems that are not reported on the application (7). **As** noted earlier, three companies reported using sexual orientation as a basis for requiring an APS.

Other reasons cited for requiring an APS included policy amount, blood transfusion before 1985, height/weight, previous claims history, occupation, and being uninsured for an extensive period.

Physical Exams. Physical examinations of insurance applicants are much less common. Overall, only 4 percent of individual applicants were examined each year by the respondents, less than 94,000 nationwide. Seventeen (28%) of the 61 responding companies never require physicals for individual applicants. However, 15 (25%) did require at least 1 out of 10 applicants to be examined by a physician or paramedical professional. In one company, every applicant must pass a physical; in another, 80 percent (tables 15 and 16).

The reasons insurers cite for ordering a physical exam closely mirror those for requiring attending physician statements. In addition, APS findings themselves often lead the underwriter to request an exam for further clarification of the proposed insured's medical condition (table 17).

Blood and Urine Screening. HIV screening may be the most discussed test, but it is only one of many tests ordered by underwriters. Among the responding insurers who do test, standard panels of blood chemistries and urinalyses are most common. These standard panels of tests are characteristic of those commonly ordered by physicians as part of a general physical evaluation. In addition to the panels, many insurers reported ordering urine screens for drugs of abuse--such as cocaine and barbiturates- -as well as for nicotine and prescription medications for diabetes, heart disease, and hypertension. The insurer's interest in prescription medication is twofold; first, to "catch" applicants who are less than straightforward in their

15 **The MIB is a non-profit association of more than 700 life and health insurere established in 1905 to facilitate sharing of underwriting information. Participating insurere report each applicant's significant medical findings (including test results) to the MIB and also routinely consult the MIB databaee for any relevant underwriting information on their current applicants.**

Table 16---Individual Underwriting by Commercial Health Insurers
Annual Volume of Attending Physician Statements, Physicals, and Testing

	Total number per year[a]	Proportion of individual applicants (column 1 ÷ 2.21 million)
Attending Physician Statement (APS)	445,736	20%
Physical Exam	93,725	4
Blood or Urine Screen	82,747	4

[a]Only those 56 companies that provided data in all three categories (i.e., APS, physical exams, and screens) are included.
[b]The 56 insurers included in this analysis reported a total volume of 2.1 million individual applications annually.
[c]Blood and urine screening data do not include HIV screening.

SOURCE: Office of Technology Assessment, 1988.

Table 17---Individual Underwriting by Commercial Health Insurers: Reasons for Requiring An Attending Physician Statement or Physical Exam

Reasons for requiring an APS or physical exam	Attending physician statement (APS)[a] (n=60) Number of Companies	Attending physician statement (APS)[a] (n=60) Percent of Companies	Physical exam[b] (n=47) Number of Companies	Physical exam[b] (n=47) Percent of Companies
Diagnosis Reported on Application	60	100%	42	89%
Attending Physician Statement (APS)	--	---	44	94
Medical Information Bureau Report (MIB)	42	70	33	70
Drug Abuse History	47	78	25	53
Inspection Report,	39	65	29	62
Age,	34	57	22	47
Late Group Applicant	12	20	4	9
Geographic Area	4	7	1	2
Sexual Orientation	3	5	2	4
Sex	2	3	0	0
Other, including:	16	27	21	45
Policy Amount	3	5	8	17
Height/Weight	2	3	4	9
Blood transfusion before 1985	1	2		
Claims/Medical History	4	7	5	11
Occupation	1	2		
Extensive period of no insurance	1	2	1	2
No current physical	-		1	2

[a]Includes two companies that only require on APS for members of individually underwritten groups.
[b]Includes three companies that only require physicals on members of individually underwritten groups.

SOURCE: Office of Technology Assessment, 1988.

health history questionnaire and, second, to determine whether known hypertensive applicants, for example, are conscientiously following prescribed treatment (table 18).

Insurance testing appears to be linked with physical exams. Close to 90 percent of commercial insurers requiring physicals (41/47) sometimes request that the applicant also be tested, and almost half of these insurers (22/47) uniformly test and examine equivalent proportions of their applicants. Only five companies reported performing physicals and never testing.

As in the case of physical examinations, routine testing is rare. In the aggregate, responding insurers reported requiring blood and/or urine screens from 4 percent of individual applicants, a total of approximately 83,000 individuals annually. Twenty-three (38%) respondents reported that individual applicants were never tested. Most companies that do test, do so infrequently; 24 (39%) respondents tested only 1 to 5 percent of their applicants. Eleven (18%) reported testing at least 1 out of 10 applicants. One company tested every applicant (tables 15-16).

Blue Cross/Blue Shield Plans

Although BC/BS plans have faced increasing competition from HMOS and other alternative insurers in recent years, the underwriting practices of many plans still reflect their past tradition of community rating and "taking all comers. " Today, the majority of plans (69%) do not hold open enrollment periods (12). Nevertheless, relative to the commercial health insurers, the survey findings indicate that less scrutiny is given a BC/BS versus a commercial insurance applicant. Most BC/BS plans make no inquiries beyond the health history portion of the application and an attending physician statement. It is the rare BC/BS plan that demands a physical exam, blood chemistry, or urinalysis.

Health History Questionnaire. All but one (i.e., a continuous open enrollment program) of the respondents requires non-group applicants to provide some health information prior to enrollment. BC/BS enrollment health history questionnaires vary in their comprehensiveness, but typically ask the applicant (and each family member) to indicate any history of receiving medical treatment or advice for a long list of diseases and disorders.

Attending Physician Statements. The APS, along with the health history questionnaire, is the information foundation of BC/BS non-group underwriting. Twelve of the fifteen responding plans (800A), including three that offer open enrollment, order an APS for at least 20 percent of their individual applicants. Four of these plans require physician statements for 40 percent or more of their applicants. The only two respondents that never ask for an APS are traditional, continuous, open enrollment programs with significant market shares (table 15).

The physician statements used by the respondents are similar to those used by commercial health insurers; physicians are asked to describe the applicant's recent health history and provide laboratory findings. Two BC/BS plans sometimes use diagnosis-specific (e. g., cardiac, hypertension) physician questionnaires that ask for extensive clarification of the applicant's health, including all relevant test findings.

A number of factors can lead a plan to require a physician statement. All the respondents said that the applicant's self-reported medical history can "trigger" an APS request. In addition, an APS is routinely ordered by 12 plans (86%) in cases of drug abuse history; five plans (36°h), based on claims history; and four plans (290/o), according to age (table 19).

Physical Exams. Only two plans reported requiring a physical exam. One holds continuous open enrollment and examines close to one-third (30%) of non-group enrollees. These physicals are done to evaluate whether the applicant may opt out of the open enrollment program and enroll in a more comprehensive plan. The other plan does not accept all applicants and examines, on average,

Table 18.--Commercial Health Insurers

Commonly Ordered Tests

BLOOD SCREENS		URINE SCREENS	
Type of Test	**Common Diagnostic Use**	**Type of Test**	**Common Diagnostic Use**
I		I Diagnostic Screens	
Glucose	Diabetes	Microscopic Analysis:	
BUN/creatinine	Kidney function	White blood cell count	Infection, cancer
Uric acid	Kidney stones	Red blood cell count	Anemia
Alkaline phosphatase	Liver function	Casts (granular, hyaline)	Kidney disorders
Bilirubin total	Gall bladder and liver function	Protein	Kidney disorders, hypertension
SGOT/SGPT	Hepatitis (alcoholic), liver function	Glucose	Diabetes
GGTP	Liver function	Specific gravity	Kidney function
Total protein	General health		
Albumin	Liver function	II Prescription Drug Screens	
Immunoglobulin	Immunodeficiency, infection	Oral hypoglycemics	Diabetes
Cholesterol	Circulatory disorders	Beta-blocker	Hypertension, coronary disease
Triglycerides	Circulatory disorders	Thiazide diuretics	Hypertension
HDL	Circulatory disorders		
Chol/HDL chol ratio	Circulatory disorders	III Drug Abuse Screens	
ELISA/ELISA/Western blot	HIV infection	Barbiturates	
T-Cell subset	HIV infection, immune system	Cocaine	
		Nicotine	

SOURCE: Office of Technology Assessment, 1988.

Table 19.--Individual Underwriting by Blue Cross/Blue Shield Plans
Reasons for Requesting an Attending Physician Statement

Reasons	Number of plans (n=14)[a]	Percent of plans
Diagnosis Reported on Application	14	100%
Drug Abuse History	12	86
Age	4	29
Late Group Applicants	1	7
Sex	1	7
Sexual Orientation	0	--
Geographic Area	0	--
Inspection Report	o	--
Other, including:		
Claims History	5	36
Height/Weight	2	14

[a]One plan did not answer this question.
SOURCE: Office of Technology Assessment, 1988.

4 percent. Medical history, age, and weight were reported as reasons for requiring a physical (table 15).

Blood and Urine Screening. Blood and urine testing is very rare among BC/BS plans. Only one plan (7%) reported doing any testing of applicants; on average 4 percent of non-group applicants are screened when a physical exam is performed. (A second plan reported intentions to test some applicants for HIV infection. See below for details regarding HIV screening.)

Thus, as for the commercial insurers, the APS appears to be the principal source of testing information for the BC/BS plans.

Health Maintenance Organizations

The principal source of health information for the HMO underwriter is the health history portion of the enrollment application. The survey findings indicate that like BC/BS applicants, the average HMO applicant receives less scrutiny than a commercial insurance applicant. Most HMOS make no inquiries beyond the health history portion of the application and an attending physician statement. It is the rare HMO plan that demands a physical exam, blood chemistry, or urinalysis.

Health History Questionnaire. All but 1 of the 15 plans reported that the applicant must complete a medical history questionnaire, and for 5 HMOS (33%) it was the sole evidence of the applicant's health.

Attending Physician Statements. More than half of the responding HMOS (8/15) went beyond the enrollment application and requested an APS for 10 to 85 percent of their non-group applicants. All the plans said that the applicant's self-reported medical history could triggeran APS request. In addition, an APS was ordered routinely by five plans (33%) in cases of drug abuse history; two plans, because of age, previous prescription drug use or claims history; and one plan, for late application to alargegroup (table 15).

HMO physician statements do not differ from those used by commercial insurers or BC/BS plans; physicians are asked to describe the applicant's recent health history and provide laboratory findings.

Physical Exams. Only 3 of the 15 respondents accepting individuals reported requiring a physical exam as a condition of enrollment for 2 to 30 percent of self-pay applicants. One of these plans required 30 percent of its applicants to get a physical at their own expense. Medical history, APS findings, and age were reported as reasons for requiring a physical. In addition, one plan noted anunofficial policy requiring routine examinations of applicants thought to be homosexual (e.g., single men 35 years or older).

Blood and Urine Screening. HMO screening is as uncommon as physical exams; only three plans reported sometimes testing individual applicants. One plan required a complete blood count and urine check for 20 percent of its individual applicants. Another ordered a complete blood count, cholesterol check, and urinalysis for 85 percent of their self-pay applicants. The third plan reported testing very infrequently (i.e., less than 1 percent) and always in conjunction with a physical exam.

Thus, the APS also is the principal source of testing data for HMOS.

AIDS Policies and Experience

Commercial Health Insurers

The survey asked several questions concerning AIDS underwriting policies and claims experience:

Do Health Insurers Attempt To Identify Applicants Exposed To The AIDS Virus? Fifty-one (86%) responding commercial insurers either screen or plan to screen individual health insurance applicants for infections with the AIDS virus through some method; of these companies, 41 do it currently and 10 plan to do so (table 20).

How Do Insurers Screen For AIDS Exposure? Not every company interested in identifying a proposed insured's HIV status, or risk for AIDS, tests applicants. Many rely on the application's health history questionnaire and attending physician statements to evaluate the risk for AIDS. Medical Information Bureau reports also play an important role and may serve as a catalyst for testing an applicant or scrutinizing more carefully an applicant's health history (table 21).[16]

The most common approach to screening potential insureds for AIDS is by incorporating a question in the health history portion of the application. All but seven of the companies (86%) who screen individual applicants use an AIDS question.

It is important to realize that including an AIDS question on the application is less an effective screen than it is an important tool for contesting preexisting condition claims. If an applicant knowingly misrepresents his or her health condition (e .g. , HIV seropositivity, recognized symptoms of AIDS, or fully diagnosed AIDS or ARC), the insurer may have grounds for subsequently denying reimbursement for the condition. (See discussion below concerning insurers' reported experience with preexisting condition claims for AIDS.)

AIDS-directed questions vary; some ask about test results, others detail symptoms or inquire whether the applicant has been diagnosed or treated for AIDS or an AIDS-related condition. An admission of AIDS, ARC, or

16 **On May 14, 1987, the MIB announced that, in response to confidentiality concerns expressed by gay rights advocates, it "will no longer keep records that show an applicant for insurance haa tested positive for the AIDS virus antibodies" (2). MIB reports now use a more general code that indicates an "abnormal" blood count (without identifying the test) and continue to report other high-risk indicators including symptoms of AIDS, history of sexually transmitted disease, drug abuse, etc.**

Table 20. --Commercial Insurers, BC/BS Plans, and HMOs Attempting to Identify Individual Applicants Exposed to the AIDS Virus

Attempt to identify applicants exposed to the AIDS virus	Commercial insurers[a] (n=59) Number	Percent	BC/BS plans (n=15) Number	Percent	HMOs (n=15) Number	Percent
Yes. 41	69.5%	86%	8	53%	8	53%
No, but plans to. 10	16.9		3	20	0	--
No, and no plans to[b]. 8	14		2	13	6	40
Other, including:						
-AIDS policies under review. .., O	--		1	7	1	7
-Yes, but for less than .5% of applicants. ..,,, O	--		1	7	0	--

[a]Two insurers did not answer this question.
[b]Three HMOs are prohibited by State law from medical screening of any kind.

SOURCE: Office of Technology Assessment, 1988.

Table 21. --Commercial Insurers, BC/BS Plans, and HMOs Methods Used to Screen Individual Applicants for Exposure to the AIDS Virus

Method(s) used to identify AIDS exposure	Commercial insurers[a] (n=51) Number	Percent	BC/BS plans[a] (n=ll) Number	Percent	HMOs[a] (n=8) Number	Percent
Question on application 44	86%		11	100%	8	100%
Attending physician statement 42	82		9	82	6	75
ELISA and western blot. 31	61		1	9	2	25
T-Cell subset study 17	33		0	--	0	0
Other, including: physical exam if high risk. . . . O	--		0	--	1	13

[a]Data include only those insurers or plans that screen or intend to screen for AIDS exposure.

SOURCE: Office of Technology Assessment, 1988.

HIV seropositivity results in immediate refusal of the application. The survey did not clarify whether applicants with a history of sexually transmitted disease or AIDS symptoms are also automatically rejected. These are some typical examples of questions appearing in policy applications:

- **Ever had Acquired Immune Deficiency Syndrome (AIDS), "AIDS" Related Complex (ARC), or tested positive for antibodies to the "AIDS" HTLV-111 Virus?**
- **Social or venereal disease of any type?**
- **Recurrent fever, fatigue, or night sweats?**
- **Had a fever of more than three weeks' duration, weight loss of more than 15 pounds in two months, diarrhea of more than one month's duration, persistent skin rash or oral lesions (infections or sores of the mouth)?**
- **During the past ten years, has any person to be insured consulted a physician or practitioner for, been treated for, had, or been informed that he or she had, Acquired Immune Deficiency Syndrome (AIDS), AIDS Related Complex (ARC), or other immune deficiency?**

Underwriters frequently order an APS to help evaluate an applicant's risk for AIDS; 82 percent or more of those screening individuals (42/5 1) for AIDS exposure require applicants' physicians to submit an APS describing their recent health history and laboratory and other diagnostic test results (table 21). In addition to possibly revealing AIDS symptoms or other risk factors, the APS may also report the applicant's HIV status. If a photocopied medical record is submitted in lieu of the standard APS (a common practice among physicians), the applicant's sexual preference may be indicated as well.

HIV testing is also quite common. This is particularly true for individual health insurance, where 61 percent of those insurers that screen (and more than half of all respondents) require applicants to pass the ELISA-ELISA-Western blot series. One-third of those that screen (17/51) also use the T-Cell subset test, presumably in States where HIV testing is prohibited. No company reported using the ELISA test without Western blot confirmation.

Substitution of the T-Cell test can be problematic even for the healthy insurance applicant. In California, where HIV testing is prohibited and T-Cell testing is common, the Department of Insurance has received complaints from HIV--negative individuals who were unable to obtain insurance because of positive T-cell test findings (5).

No insurer reported using any blood test alternative other than the T-Cell subset study.

Who Is Required To Have An AIDS Test? Thirty-one (51%) of the respondents routinely tested individual health insurance applicants for HIV antibodies; of these, seven test all applicants, 14 test only those considered to be "high-r isk," and 10 test according to various criteria (e.g., State of residence, medical history, policy amount, etc.). "High-risk" is defined differently by each company; history of sexually transmitted disease was the most commonly reported criteria, although those with a history of drug abuse, receiving blood transfusions, and hemophiliacs are also frequently tested. Many companies, however, reported that hemophiliacs and known drug abusers are automatically denied coverage. Three companies noted that for residents in areas of high AIDS prevalence, particularly New York and California, 100 percent of their applicants are HIV-tested. Applicants in California, where HIV antibody testing is prohibited, undergo the T-Cell test (table 22).

How Many Individuals Have Insurers Reimbursed For AIDS-Related Claims? Almost three-quarters of the companies (45/61) responding to the survey had reimbursed at least one individual policyholder for AIDS-related care. In total, 1,010 AIDS cases were reported and, on average, each insurer financed the care of 22 AIDS-related cases. The range of the AIDS "burden" on each insurer, however, varied widely. For individual health insurance, for example, payments for AIDS-related services ranged from no cases (six companies) up to 269 (one company). More than half of the companies (34/61) reported 10 reimbursable AIDS cases or fewer, while only four have reimbursed 60 or more individuals for AIDS-related care (table 23).

Table 22.--Commercial Health Insurers HIV Testing Practices and Criteria for High Risk Applicants

	Number of companies (n=61)
Surveyed Companies Requiring HIV Test	**31 (51%)**
Who do they Test?[a]	
All Applicants	7
High Risk Applicants Only	14
Other, including:	7
High incidence areas-all; elsewhere based on medical history	2
New York and Californiar all; elsewhere based on medical history	1
Anyone whose blood is drawn	1
Policy amounts over $100,000	1
If medical history warrants it	2
Who is Considered High Risk?	
All males	1
History of sexually transmitted disease	15
Hemophiliacs[b]	7
History of receiving blood transfusions	8
Drug abusers[b]	10
Other, including:	
All males, 20-50	1
AIDS symptoms present	4
History of hepatitis	1
Individual consideration	1

[a] Three of the thirty-one insurers that HIV test did not answer this question.
[b] Numerous carriers noted that they do not underwrite hemophiliacs or drug abusers under any conditions.

SOURCE: Office of Technology Assessment, 1988.

It is important to note here that surveillance of AIDS-related cases and of costs to insurers is sketchy at best. Sixteen percent (10/61) of the individual health insurers noted that **case** data were unknown or unavailable, and the majority of those responding reported collecting AIDS-related case data only since 1986. Cost projections for AIDS cases were not provided by two-thirds of those surveyed. Many commented to OTA that identifying AIDS-related cases is often difficult and, if data collection systems do exist, cases and costs are probably undercounted. Moreover, it is not standard practice among most insurers to project annual costs or claims by diagnosis.

Poor reporting of AIDS-related data may be, in part, a reflection of the minimal impact of the disease in many locales around the country. An official of one of the five largest individual health insurers, despite reporting 269 AIDS-related cases and historical costs of more than $3.2 million, commented to OTA that AIDS "is just a drop in the bucket."

Table 23--- Commercial Health Insurers Range in Individually Underwritten AIDS-Related Cases

Number of AIDS-related cases	Number of companies (n=51)a	Percent of companies reporting AIDS-related experience
None	6	12%
1-1o	28	55
11-49	13	25
50-100	2	4
More than 100	2	4

[a] Ten of the sixty-one respondents (16%) were unable to provide AIDS-related case data.

SOURCE: Office of Technology Assessment, 1988.

What Costs Do Insurers Project For AIDS-Related Claims For 1987? Twenty-one companies provided projections of AIDS-related claims costs for 1987, forecasting total claims of $11.04 million for individual health insurance, an average of $.53 million per insurer. Projections ranged tremendously; two companies did not expect any AIDS cases this year (both specialize in insurance for seniors), while four projected costs of $1.3 to $2.3 million for individual health policies (table 24). (As noted above, one insurer reported more than $3.2 million in AIDS-related claims to date.)

Table 24. - -Commercial Health Insurers
Range in 1987 Individually Underwritten AIDS-Related Cost Projections

Projected AIDS-related costs (1987)	Number of companies (n=21)	Percent of companies projecting AIDS-related claims
o	2	10%
$io;ooo:io;ooo: :::::::::: :::::::	3	14
$100,000 -350,000.	6	29
$500,000-750,000.	6	29
$1.3 million-2.3 million	4	19

[a] Forty insurers (almost two-thirds of the respondents) were unable to provide AIDS-related cost projections. Note, however, that one of these companies reported historical costs totaling $3.2 million for 269 cases identified from January 1985 to June 1987.
SOURCE: Office of Technology Assessment, 1988.

What Proportion Of Insureds With AIDS Have Been Found To Have A Preexisting Condition For AIDS? Preexisting condition clauses are used universally by health insurers and significantly restrict reimbursement for medical conditions that existed before the effective date of coverage. Two key time periods set limits on the insurer's financial responsibility for such conditions: the length of time before and the length of time after the policy goes into effect. The NAIC has issued several relevant model regulations. Regulations to implement their Individual Accident and Sickness Insurance Minimum Standards Act define a preexisting condition as "...the existence of symptoms which would cause an ordinarily prudent person to seek diagnosis, care or treatment" or "a condition for which medical advice or treatment was recommended by a physician or received from a physician within a **five year period preceding the effective date of the coverage** of the insured person" (emphasis added) (17).[17] In addition, no claim for losses incurred two **years** after the policy date should be denied on the ground that the disease or physical condition was preexisting (17).

Though most experts agree that HIV seropositivity does not meet the NAIC definition of a preexisting condition, the head underwriter of a top 10 company told OTA of denying reimbursement on that basis. At present, there are several court cases pending relating to what comprises a preexisting condition for AIDS and the alleged refusal by insurer(s) to pay for AIDS-related claims based on a policy's preexisting condition provision.

Almost half (21/44) of the individual health insurers who had received at least one AIDS-related claim reported finding no preexisting AIDS-related cases. Eleven found 1 to 9 percent of cases to be preexisting; 10 companies discovered 10 to 50 percent. Two companies reported more than 50 percent (table 25).

What Plans Have Companies Made In Response To The Financial Impact Of AIDS? Beyond the actions already taken by many insurers, and reported above, many companies have additional plans in the works. The most common are plans to reduce company exposure in the individual and small group health insurance markets (e.g., by introducing tighter underwriting guidelines) and to ex-

17 As of October, 1987, the regulation had been adopted by 20 States (16).

Table 25. --Commercial Health Insurers and BC/BS Plans Reporting AIDS Cases Prevalence of Cases With a Preexisting Condition for AIDS

Proportion of AIDS cases with a preexisting condition for AIDS	Commercial insurers[a] (n=44)		BC/BS plans[b] (n=8)	
	Number	Percent[c]	Number	Percent
O percent	21	47%	2	25%
1 to 9 percent	11	25	3	38
10 to 50 percent	10	23	1	13
greater than 50 percent	2	5	2	25

[a]One of the forty-five commercial insurers that reported AIDS cases did not answer this question.
[b]Two of the ten BC/BS plans that reported AIDS cases did not answer this question.
[c]Percentages may not total 100 due to rounding.

SOURCE: Office of Technology Assessment, 1988.

pand HIV or other testing. One-third of those responding (20/61) plan one or both of these measures. Nine companies intend to add an AIDS question to the health history portion of their application forms. Five reported plans to exclude AIDS and/or sexually transmitted diseases from individual health coverage. Other planned measures include placing a dollar limit on AIDS coverage in new policies and establishing a waiting period for AIDS benefits (table 26).

No insurer cited plans to withdraw from the individual health market; however, one of the largest surveyed insurers noted its withdrawal from the Washington, D.C. area. (The District of Columbia has the nation's most stringent prohibitions regarding AIDS testing and underwriting.) Nonetheless, it is difficult to assess whether AIDS has reduced the availability of nongroup health coverage; insurers, for example, can effectively eliminate their role in the market by pricing nongroup policies so high that no one will buy them (19).

Blue Cross/Blue Shield Plans

The survey asked several questions concerning AIDS underwriting policies and claims experience:

Do **Blue Cross/Blue Shield Plans Attempt To Identify Applicants Exposed To The AIDS Virus?** Eleven or 73 percent of the respondents either screen or plan to screen direct pay applicants for AIDS exposure by one method or another; of these, eight currently screen direct pay applicants and three plan to. One additional plan noted that its AIDS policies are under review (table **20).**

How Do Blue Cross/Blue Shield Plans Screen For AIDS Exposure? The plans' approach to screening **for** AIDS very much mirrors their general approach to underwriting. The health history questionnaire along with an attending physician statement are the principal means for assessing an applicant's health. Testing is very rare (table 21).

Table 26.--Response to the AIDS Epidemic:
Reported Plans by Commercial Health Insurers, BC/BS Plans, and HMOs

Reported Plans	Comm [illegible] (n=61)		BC/BS Plans (n=15)		HMO (n=16)	
	Number	Percent	Number	Percent	Number	Percent
Withdraw from the individual health market altogether[a]	0	--	0	--	1	6%
Exclude AIDS and/or sexually transmitted diseases from individual health coverage	5	8%	1	7%	0	--
Reduce company exposure in the individual and small group health markets (e.g., by introducing more restrictive underwriting guidelines	21	34	10	67	5	31
Expand HIV or other testing of applicants	20	33	1	7	2	13
Terminate open enrollment	NA[b]	--	0	--	0	--
Other:						
- Considering one or more of the above	3	5	0	--	0	--
- Would consider any of the above policies if they were adopted by competing HMOs	NA	--	NA	--	1	6
- Add an AIDS question to application	9	15	2	13	0	--
- Include a dollar limit for AIDS care in new policies	2	3	0	--	0	--
- Establish a 12-24 waiting month period for AIDS	1	2	0	--	0	--
- Deny applicants with a history of sexually transmitted disease and expand waiting period for hepatitis, lymph disease, and mononucleosis	0	--	1	7	0	--
- Expand education role	0	--	2	13	0	--
- Policies currently under review	0	--	2	13	2	13
- Considering HIV testing	0	--	0	--	1	6
No action planned or reported	10	16	2	13	7	44

[a]One commercial insurer reported withdrawing from the Washington, D.C. market.
[b]NA=Not Applicable.

SOURCE: Office of Technology Assessment, 1988

The 11 plans that try to identify applicants exposed to the AIDS virus, use an AIDS-related question in applications for direct pay coverage. The BC/BS approach to asking about AIDS differs from many commercial carriers. Rather than ask about AIDS-related symptoms or test results, the plans have simply added AIDS and/or AIDS Related Complex to their health history diagnoses lists. Venereal disease is also included by five plans. One plan asks a more general question concerning "positive test results for immune disorders" because it is prohibited, by State regulations, from asking directly about AIDS. Interestingly, a continuous, open enrollment plan that does not screen for AIDS exposure specifically instructs the applicant not to indicate need for medical advice or treatment "because you have had a positive result on an AIDS test--HTLV-III."

An admission of AIDS, ARC, or HIV seropositivity results in immediate refusal of the application except in open enrollment plans. As in the case of commercial insurers, BC/BS plans include an AIDS question on the application not only for screening purposes but also as an important tool for contesting preexisting condition claims. If an applicant knowingly misrepresents his or her health condition, the plan has grounds for denying reimbursement for the condition. (See discussion below concerning BC/BS reported experience with preexisting condition claims for AIDS.)

Nine plans (82%o) may ask for an APS to help evaluate a direct pay applicant's risk for AIDS. The APS may indicate AIDS symptoms, other risk factors, HIV status, and even sexual preference.

Only one plan intends to test some applicants for HIV infection (using the ELISA-ELISA-Western blot series). No plan reported using the T-cell subset test.

Who Is Required To Have An AIDS Test? As noted above, only one plan expects to test some applicants for HIV infection. Anyone considered to be "high-risk" will be required to undergo the ELISA-ELISA-Western blot series. The plan's criteria for "high-risk" include: 1) all males, 2) history of sexually transmitted disease, 3) hemophiliacs, 4) history of receiving blood transfusions, and 5) drug abusers.

How Many Blue Cross/Blue Shield Subscribers Have Been Reimbursed For AIDS-Related Claims? BC/BS surveillance of AIDS-related cases and costs seems sketchy at best. One-third of the plans noted that case data were unknown or unavailable, and the majority reported collecting AIDS-related data only since summer 1985. Several plans indicated that they are just now developing systems for better identifying subscribers diagnosed with AIDS-related illnesses; furthermore, current caseload data are probably underestimated. Ten of the fifteen respondents were not able to provide projections of AIDS-related claims costs for 1987 (table 27). Most of the plans that provided relevant data were unable to identify AIDS-related cases or costs by type of coverage (i.e., individual vs. group). Consequently, aggregate data is presented here reflecting both individual and group policy experience.

Ten plans reported reimbursing 3,933 subscribers for AJDS-related care, an average of 393 subscribers per plan. The range in caseload was tremendous, from only 1 to 3,000 subscribers. Along with the obvious effect of location on regionally based insurers such as BC/BS plans, market share and open enrollment seem to critically determine a plan's AIDS "burden."

Open enrollment plans with a large share of the health insurance market appear to be particularly vulnerable if also located in a State that is seriously burdened by the epidemic. The seven plans that never holdan open enrollment period reported a total of 453 AIDS-related cases, an average of 65 subscribers per plan. Three of these plans are located in areas of high AIDS prevalence, and only one has historically held a significant market share (i.e., close to 40%) (4). In stark contrast, the three plans that are continuously open reported reimbursing 3,480 subscribers for AIDS-related care, an average

of 1,160 cases per plan. Two of these plans are in areas of high AIDS prevalence, one plan alone accounts for 3,000 cases. All three have historically held large market shares ranging from 60 to 75 percent (table 27).

What Costs Do The BC/BS Plans Project For AIDS-Related Claims For 1987? Only five plans provided 1987 claims projections. Three non-open enrollment plans forecast a total of $29.6 million in AIDS-related claims for 1987 ($20 million was for one plan alone). Two of these plans are located in high-risk regions. Claims totalling $27 million were projected by two open enrollment plans, $23 million for one plan and $4 million for the other (table 28).

What Proportion Of Subscribers With AIDS Were Found To Have A Preexisting Condition For AIDS? Eight of the 10 plans that have identified at least one subscriber with AIDS reported finding that 1 to more than 50 percent of these subscribers had a preexisting condition for AIDS. Two of these plans, both in areas of high AIDS prevalence, linked more than half of their AIDS cases with a preexisting condition (table 25). This may be evidence of adverse selection and the effort of AIDS sufferers to obtain insurance protection after an AIDS-related diagnosis had been made or seriously suspected.

Table 27.--Blue Cross/Blue Shield Plans
Number of Subscribers Reimbursed for AIDS-Related Claims

	No open enrollment (n=10)	Open enrollment (n=5)[a]	All plans (n=15)
Total number of subscribers reimbursed for AIDS-related claims[b]	453	3,480	3,933[c]
Number of plans reporting AIDS-related claims	7 (70%)	3 (60%)	10 (67%)
Average number of AIDS-related cases per plan	65	1,160	393

[a]One of the five plans holds a limited open enrollment period; the others are continuous.
[b]AIDS-related claims data reflect both individual and group policy experience.
[c]One plan alone reported 3,000 subscribers with AIDS; the other plans had an average AIDS-related caseload of 104.

SOURCE: Office of Technology Assessment, 1988.

Table 28. --Blue Cross/Blue Shield Plans
Projected AIDS-Related Claims Cost for 1987

	No open enrollment (n=l0)	Open enrollment (n=5)[b]	All plans (n=15)
Total projected AIDS-related claims cost for 1987[a]	$29.6 million	$27.0 million	$56.6 million
Number of companies reporting projections	3 (30%)	2 (40%)	5 (33%)
Average projected cost for 1987	$9.9 million	$13.5 million	$11.3 million
Range	$2.6 to $20 million	$4 to $23 million	$2.6 to $23 million

[a]AIDS-related cost projections include individual and group policies.
[b]One of the five plans holds a limited open enrollment period; the others are continuous.

SOURCE: Office of Technology Assessment, 1988.

What Plans Have BC/BS Plans Made In Response To The Financial Impact Of AIDS? All but two of the respondents report some action in response to the AIDS epidemic. Six plans (40940) noted intentions to redube their exposure in the individual and small group health markets. One cited intentions to expand HIV or other testing of applicants while also excluding AIDS and/or sexually transmitted diseases from individual health coverage. Others reported intentions to add an AIDS question to enrollment applications, deny applicants with a history of sexually transmitted disease, and lengthen the waiting period for new subscribers with a history of hepatitis, lymph disease, and mononucleosis. Two plans (one holds continuous open enrollment) intended to expand their AIDS education efforts, and two others are currently reviewing their AIDS-related policies (table 26).

Health Maintenance Organizations

The survey asked several questions concerning AIDS underwriting policies and claims experience:

Does The HMO Attempt To Identify Applicants Exposed To The AIDS Virus? More than half of the respondents (8/15) screen individual applicants for exposure to the AIDS virus by one method or another. Three of the plans that do not try to identify applicants exposed to AIDS are prohibited from doing any medical screening by State law.

One plan noted that it is currently formulating its AIDS policies (table 20).

How Does The HMO Screen For AIDS Exposure? The responding HMOS rely primarily on the enrollment application and the attending physician statement to identify applicants exposed to the AIDS virus. HIV testing is done by only two plans and is being considered by a third (table 21).

Each of the eight plans that screen for HIV infection ask an AIDS-directed question in the health history portion of their enrollment form. Some of the respondents have simply added AIDS and/or ARC to the application's health history list of diagnoses, while one plan asks: "Had any blood tests including any screening for the presence of viral antibodies?"

An admission of AIDS, ARC, or HIV seropositivity results in immediate declination of the application. Like the commercial insurers and BC/BS plans, the HMOS include an AIDS question on the application not only for screening purposes but also as an important tool for contesting preexisting conditions. If an applicant knowingly misrepresdnts his or her health condition, the plan may have grounds for terminating HMO membership.

Six plans (75%) report that they request an APS to help determine an individual applicant's risk for AIDS. As noted earlier, the APS may report AIDS symptoms, other risk factors, HIV status, and even sexual preference.

Only two plans (25%) require self-pay applicants to be tested. Both use the ELISA-ELISA-Western blot series. Another plan reported that it is considering plans to introduce HIV testing of applicants. No plan reported using the T-cell subset test (table 21). One plan that is located in a State where HIV testing is prohibited requests a physical exam of all high-risk applicants.

Who Is Required to Have An AIDS Test? As noted above, only two HMOS reported that they test some applicants for HIV infection. At both plans, anyone considered to be "high-risk" will be required to undergo EL ISA-ELISA-Western blot testing. At one plan "high-risk" is defined as a history of sexually transmitted disease or drug abuse. (This plan requires applicants to be tested at their own expense.) The other plan considers 12 conditions -- for example, acute onset of severe seborrheic dermatitis, history of three or more episodes of any sexually transmitted disease, or Kaposi's sarcoma--to be high-risk indicators.

How Many Members With AIDS/ARC Have The HMOS Had? The responding HMOS' AIDS/ARC case data seem to be just as sketchy as the statistics provided by the commercial and BC/BS plans. One HMO identified AIDS cases as early as 1981, some plans reported patients in 1983, while others cited cases as of only this year. As for the BC/BS plans, the HMOS were unable to identify AIDS-related cases or costs by type of coverage (i.e., individual vs. group). Consequently, aggregate data is presented here reflecting both individual and group membership experience. In total, twelve plans reported caring for 1,468 members with AIDS or ARC, an average of 122 members per HMO. The range in cases varied from none at two HMOS to 940 patients at one HMO (table 29).

What Costs Do The HMOS Project For AIDS-Related Care In 1987? Only two HMOS provided projections of AIDS-related costs for 1987. One plan that had identified 10 cases during the first 10 months of 1987 forecast total costs of $750,000 for the year; the other had 11 cases from September 1986 through September 1987 and forecast total costs of $700,000 for 1987. At both plans, no cases occurred among nongroup members. (An additional HMO that had reported caring for 940 AIDS-related cases since 1981 did not project 1987 costs, but estimated average lifetime costs of approximately $35,000.)[18]

18 Average lifetime cost is the total cost from time of diagnosis until death.

Table 29.--Health Maintenance Organizations Range in AIDS/ARC Caseload

Number of AIDS/ARC cases[a]	Number of HMOS (n=16)	Percent of HMOS
None	2	13%
1-25	7	44
60-70	2	13
110-200	2	13
900-1000	1	6
Not Available	2	13

[a]AIDS/ARC cases include individual and group members.

SOURCE: Office of Technology Assessment, 1988.

What Proportion of HMO Members With AIDS Or ARC Were Found To Have A Preexisting Condition For AIDS? A non-federally qualified HMO, located in a high prevalence area, reported that more than half of its individual members with AIDS or ARC were found to have a preexisting condition. According to State law and in contrast to the other insurers, this plan was obligated to provide services for preexisting conditions (without a waiting period) unless the applicant had deliberately misrepresented his or her health before joining the HMO (13). (Federally qualified HMOS may have grounds to disenroll members who misrepresent their health, but the HMO is obligated to provide medically necessary health services until membership is terminated.)

What P1ans Have The HMOS Made In Response To The Financial Impact Of The AIDS Epidemic? Almost half of the respondents (8/ 16) reported no new plans in response to the AIDS epidemic. However, 5 of the 16 HMOS (3 IYo) reported intentions to reduce their exposure in the individual and small group health markets (e.g., by introducing more restrictive underwriting guidelines) while two plans intend to expand HIV or other testing, two others are currently considering their AIDS-related policies, and one is withdrawing from the individual health market altogether (table 26).

Top Ten Most Costly Conditions: AIDS vs. Other Major Illnesses

Commercial Health Insurers

Individual and small group (i.e., individually underwritten) coverage is perhaps the health insurance sector most vulnerable to financial loss in the wake of an unanticipated AIDS epidemic. In an effort to put the costs of AIDS into context and evaluate its impact, OTA asked insurers to identify which 10 of 22 major diagnostic categories (including AIDS and related conditions) absorbed the greatest share of claims dollars for individually underwritten policies. Thirty-six (58%0) of the 62 respondents were able to provide these data.

Six of 36 companies (17°/0) reported that AIDS was among the 10 diagnoses that accounted for the largest proportion of individually underwritten claims. Overall, AIDS and related conditions ranked sixteenth for commercial insurers. The complete list of diagnoses in order of the frequency with which they were ranked as top 10 are presented in table 30.

Blue Cross/Blue Shield Plans

BC/BS plans were also asked which 10 of 22 major diagnostic categories (including AIDS and related conditions) absorbed the greatest share of claims dollars for individually underwritten policies. Eight of the fifteen respondents (53%) were able to provide these data.

Table 30.--Commercial Health Insurers
AIDS vs. Other Major Illnesses

The surveyed insurers were provided a list of 22 major diagnostic categories, including AIDS and related conditions, and asked **to rank the ten diagnoses that account for the largest proportion of their total individually underwritten claims costs (see Appendix A, question III-D.).**

	Diagnostic category	Number of times diagnosis was ranked in the top ten (n=36)[a]
1.	Circulatory disorders, including: Heart disease, essential hypertension, cerebrovascular disease, other circulatory disorders	59[b]
2.	Neoplasms, including: Malignant neoplasm of trachea, bronchus and lung; malignant neoplasm of breast; other neoplasms	51
3.	Respiratory disorders	27
4.	Digestive disorders	25
5.	Diseases of the female reproductive system	25
6.	Injury, poisoning and toxic effects	24
7.	Musculoskeletal/connective tissue diseases	21
8.	Kidney/urinary tract diseases	15
9.	Mental disorders	15
10.	Nervous system diseases	14
11.	Liver, gallbladder, pancreatic disorders	14
12.	Pregnancy, childbirth, and the puerperium	12
13.	Diabetes mellitus	10
14.	Congenital abnormalities/perinatal conditions	9
15.	Substance use/induced organic disorders	8
■ 16.	AIDS AND RELATED CONDITIONS	6 -
17.	Ear, nose, and throat diseases	4
18.	Eye diseases	4
19.	Diseases of the skin, subcutaneous tissue and breast	4
20.	Male reproductive system diseases	4
21.	Infectious and parasitic diseases	1
22.	Other endocrine and metabolic diseases	1

[a]**Only 360 of the 62 responding insurers (68%) were able to answer to this question.**
[b]**Some of the responding insurers ranked specific diseases (e.g. heart disease, malignant neoplasm of the breast) within the general categories of "circulatory disorders" and "neoplasms"; others were unable to report their claims experience at this level of detail. As a result, circulatory disorders and neoplasms appear in the top ten more than 36 times.**

SOURCE: Office of Technology Assessment, 1988.

Only two of eight plans (250/o) reported that AIDS was among the 10 diagnoses that accounted for the largest proportion of individually underwritten claims. Both are located in areas of high AIDS prevalence; one plan reported that AIDS and related conditions absorbed 9 percent of claims dollars, the other, 4 percent. Overall, AIDS and related conditions ranked fourteenth for BC/BS plans. The complete list of diagnoses in order of the frequency with which they were ranked as top ten are presented in table 31.

Health Maintenance Organizations

The responding HMOS did not provide sufficient information to analyze their response.

Table 31--- Blue Cross/Blue Shield Plans
AIDS vs. Other Major Illnesses

The surveyed plans were provided a list of 22 major diagnostic categories, including AIDS and related conditions, and asked to rank the ten diagnoses that account for the largest proportion of their total individually underwritten claims costs (see Appendix A, question III-D.).

	Diagnostic category	Number of times diagnosis was ranked in the top ten (n=8)[a]	
1.	Circulatory disorders, including: Heart disease, essential hypertension, cerebrovascular disease, other circulatory disorders	9	
2.	Respiratory disorders	8	
3.	Digestive system disorders	8	
4.	Musculoskeletal/connective tissue diseases	8	
5.	Neoplasms, including: Malignant neoplasm of trachea, bronchus and lung; malignant neoplasm of breast; other neoplasms	6	
6.	Pregnancy, childbirth, and the puerperium	6	
7.	Mental disorders	6	
8.	Injury, poisoning, and toxic effects	5	
9.	Congenital abnormalities/perinatal conditions	5	
10.	Liver, gallbladder, pancreatic disorders	4	
11.	Kidney/urinary tract diseases	3	
12.	Nervous system diseases	3	
13.	Diseases of the female reproductive system	3	
14.	AIDS AND RELATED CONDITIONS	2	D
15.	Infectious and parasitic diseases	1	
16.	Blood diseases	1	
17.	Ear, nose, and throat diseases	1	
18.	Eye diseases	1	

[a] Only 8ofthe 15 responding plans (53%) were ableto answer to this question.
[b] Some of the responding plans ranked specific diseases (e.g., heart disease) within the general category of ''circulatory disorders"; others were unable to report their claims experience at this level of detail. As a result, circulatory disorders appears in the top ten more than eight times.

SOURCE: Office of Technology Assessment, 1988.

Appendix A

SURVEY QUESTIONNAIRE

NOTE:

The following pages reproduce the survey questionnaire sent to the commercial health insurers. The questionnaire was modified slightly for the Blue Cross/Blue Shield plans and Health Maintenance Organizations to include proper terminology and reflect differences in rating and enrollment practices.

CONGRESSIONAL OFFICE OF TECHNOLOGY ASSESSMENT

DIAGNOSTIC AND PREDICTIVE MEDICAL TESTS PROJECT

SURVEY OF HEALTH INSURANCE COMPANIES

I. GENERAL INFORMATION

Company: _____

Address; _____

_____

Contact Person: _____

Title: _____

Telephone: _____

PLEASE NOTE: This suney focuses on three health insurance populations (1) Individuals who seek insurance independently and without any association with an employer or membership group of any kind. (2) Individually underwritten groups, those groups which are too small to qualify for experience rating and whose members must be individually underwritten. (3) All other groups, employee and other groups which do not require individual underwriting (except in the case of late entrants) .

Please refer only to these three populations when responding to the questionnaire.

Conversions should be excluded from your responses. In addition, we prefer that you exclude Medigap insurance from your responses. If, because of reporting or other reasons, you must include Medigap policies, please check the box below:

[1 YES, Medigap policies and statistics are included in our responses to this survey.

QUESTIONS: Please call Jill Eden at the Office of Technology Assessment (telephone: 202-228-6590).

II. UNDERWRITING PRACTICES

A. For each category of coverage, please esthate the proportion of health insurance applicants for whom:

	Individual	Individually Underwritten GROUPS	All Other Groups
1. An attending physician statement (APS) is required.	_____%	_____%	_____%

**** If an APS is required, which of the following factors trigger an APS request? (check all that apply)**

[ ] diagnosis or symptoms reported on application or examination
[ ] age
[ ] sex
[ ] M.I.B., Inc.
[ ] inspection report
[ ] sexual orientation
[ ] drug abuse history
[ ] late group applicant
[ ] geographic area
[ ] other, please specify: _____

2. **A physical exam is conducted.**	_____%	_____%	_____%

**** If a physical exam is conducted, which of the following factors trigger a request for a physical? (check all that apply)**

[ ] diagnosis or symptoms reported on application
[ ] APS findings
[ ] age
[ ] sex
[ ] MIB, Inc.
[ ] inspection report
[ ] sexual orientation
[ ] drug abuse history
[ ] late group applicant
[ ] geographic area
[ ] other, please specify: _____

	Individual	Individually Underwritten Groups	All Other Groups
3. **Blood or urine screens are performed.**	_____%	_____%	_____%

** **If screening is performed, please indicate the names of the tests included in the screen: (Or attach a list)**

Blood	Urine
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

4. **A financial or personal investigation is conducted (e.g. ,motor vehicle or credit checks) .**	_____%	_____%	_____%

B. For individually underwritten applicants, please indicate the importance of each of the following factors in determining insurability: (Note the response definitions below. For each factor, place a check in only one of the columns.)

	Very Important	Important	Unimportant	Never Used
1. **age**	____	____	____	____
2. **type of occupation**	____	____	____	____
3. avocation (e.g., skiing or skydiving)	____	____	____	
4. financial status (i.e., income or credit worthiness)	____	____	____	____
5. **health endangering personal habits (e.g., alcohol or drug abuse)**		____	____	____
6. **health enhancing personal behavior (e.g., premium credits for non-smokers)**	____	____	____	____
7. **illegal or unethical behavior (e.g. , criminal or questionable business practices)**	____	____	____	____
8. **place of** residence	____	____	____	____
9. **sexual orientation**	____	____		____
10. other, specify: _____	____	____	____	____

PLEASE NOTE THESE DEFINITIONS:

Very Important - **Critical to underwriting process; can affect acceptance/rejection.**

Important - **Always considered but will never by itself affect acceptance/rejection. It may, however, influence coverage limits (e.g. exclusions or waiting period) and/or premium.**

Unimportant - **Rarely affects acceptance/rejection, coverage limits, or** premium -- unless **in conjunction with other more important factors.**

Never Used - **Never considered.**

C. Please answer the following questions regarding your company's AIDS policies:

	Individual	Individually Underwritten CrouD	All Other Groum
1. Do you attempt to identify applicants who have been exposed to the AIDS virus? (check one for each category)			
- yes	[1	[1	[1
- no, but plan to	[1	[1	[1
- no, and no plans to	[1	[1	[1
other, specify: _____	[1	[1	[1

*w If yes (or "no, but plan to"), please indicate the following:
(All others go to **question** *#2,* next page)

a. Screening method (check all that apply):

- question(s) on application	[1	[1	[1
attending physician statement	[1	[1	[1
- ELISA only	[1	[1	[1
- ELISA and Western blot (if positive ELISA)	[1	[1	[1
- T-cell subset study	[1	[1	[1
other blood tests, specify: _____ _____	[1	[1	[1

	Individual	Individually Underwritten Groups	All Other Groups
b. Which applicants are (or will be) required to have an AIDS blood test?			
All applicants	[1	[1	[1
Applicants at high risk for AIDS	[1	[1	[1
c. If only applicants at high risk for AIDS are tested, who is selected? (check all that apply)			
all males	[1	[1	[1
applicants with history of sexually transmitted disease	[1	[1	[1
hemophiliacs	[1	[ ]	[1
applicants with history of receiving blood transfusions	[1	[1	[1
drug abusers	[1	[1	[1
other, specify: _____	[1	[1	[1
2. How many of your insureds have you reimbursed for AIDS-related claims?	_____	_____	_____
- please specify related time period:	_____	_____	_____
3. If available, please indicate your company's projected AIDS-related claims costs for 1987.	$_____	$_____	$_____
4. If your company has had AIDS-related claims, what percent of the individuals with AIDS have been found to have a preexisting condition for AIDS? (check one for each category)			
- 0 percent	[1	[1	[ ]
- 1 to 9 percent	[1	[1	[ ]
- 10 to 50 percent	[1	[1	[ ]
- greater than 50 percent	[1	[1	[ ]

5. Does your company plan to do any of the following, in response to the financial impact of AIDS (please check all that apply):

- Withdraw from the individual health market altogether [1
- Exclude AIDS and/or sexually transmitted diseases from individual health coverage [1
- Reduce company exposure in the individual and small group health markets (e.g. , by introducing more restrictive underwriting guidelines). [1
- Expand HIV or other testing of applicants [1
- Other, specify: _____ [1

III. INDIVIDUAL AND SMALL GROUP STATISTICS

	Individual Policies	Individually Underwritten Groups
A. Average number of applications per year	_____	_____
B. Please indicate proportion of individuals that are: (numbers should total 100%)		
- accepted at standard rates	_____ %	_____ %
- covered with an exclusion waiver ~	_____ %	_____ %
- covered with a rated premium only	_____ %	_____ %
covered with an exclusion waiver ~ rated premium	_____ %	_____ %
- declined	_____ %	_____ %
m	100 z	100 %

C. If members of individually underwritten groups are not rated, ridered, or declined on an individual basis, what proportion of the groups, as a whole, are:

accepted with a rated premium _____ %

- declined _____ %

D. This question concerns individually underwritten policies only. Read the list below and place a check in column 2 next to the ten diagnoses which account for the largest proportion of your claims costs. In column 3, please estimate the proportion of total costs that each of the top ten diagnoses represents In column 4, rank the ten diagnoses (i.e., 1 - 10) in order of cost.

	DIAGNOSIS	(1) ICD9-CM CODES	(2) TOP TEN	(3) ESTIMATED % OF TOTAL COST	(4) RANK
1	AIDS and related conditions*	See note below.		_____%	____
2	Diseases of the blood and blood-forming organs and immunity (excluding AIDS and related conditions)	280-289		_____%	____
3	Circulatory system (please specify below)				
	Essential hypertension	401	[ ]	_____%	____
	Heart disease	391-392.9, 393-398, 402, 404 410-416, 420-429	[ ]	_____%	____
	Cerebrovascular disease	430-438		_____%	____
	Other circulatory system disorders	390, 392.9,399-400, 403, 405-409,417-419, 430-459,785	[ ]	_____%	____
4.	Congenital abnormalities/conditions of perinatal	740-779, V30-V39	[ ]	_____%	____
5.	Diseases of the digestive system	520 569 787	[ ]	_____%	____
6.	Diseases of the ear, nose and throat	380 389, 460-464, 784	[ ]	_____%	____

Cont'd on next page

*Note: Please include any insured diagnosed with AIDS ARC, or any opportunistic infection thought to be AIDS-related.

DIAGNOSIS	(1) ICD9-CM CODES	(2) TOP TEN	(3) ESTIMATED % OF TOTAL COST	(4) RANK
7 Endocrine nutritional, and metabolic diseases				
Diabetes mellitus	250	[ ]	_____%	____
Other	240-249,251-279,783	[ ]	_____%	____
8 Diseases of the eye	360-379	[ ]	_____%	____
9 Diseases of the female reproductive system	614-629	[ ]	_____%	____
10. Diseases of the liver, gallbladder and pancreas	570-579, 789	[ ]	_____%	____
11 Infectious and parisitic diseases	001-139	[ ]	_____%	____
12. Injury, poisoning, and toxic effects of drugs	800-939, 940-999, E800-E998	[ ]	_____%	____
13 Diseases of the kidney and urinary tract	580-599, 788	[ ]	_____%	____
14. Diseases of the male reproductive system	600-608	[ ]	_____%	____
15. Mental disorders	290, 293-302, 306 3[illegible]9	[ ]	_____%	____
16 Diseases of the musculoskeletal system and connective tissue	710-739	[ ]	_____%	____
17 Neoplasms (please specify below if possible)				
Malignant neoplasm of trachea, bronchus and lung	162, 197.0, 197.3		_____%	____
Malignant neoplasm of breast	174 - 175, 198.81	]	_____%	____
Other neoplasms	140-161, 163-174, 176-196, 197.2, 197.4-198.8, 199-239	]	_____%	____

Cont'd on next page

DIAGNOSIS	(1) ICD9-CM CODES	(2) TOP TEN	(3) ESTIMATED % OF TOTAL COST	(4) RANK
18. Diseases of the nervous system	320-359, 780-781	[ ]	_____%	____
19 Pregnancy, childbirth, and the puerperium	630-676		_____%	____
20 Diseases of the respiratory system	465-519		_____%	____
21 Diseases of the skin, subcutaneous tissue, and breast	680-709 610-611, 782		_____%	____
22 Substance use (including alcohol) and induced organic disorders	291 292, 303-305		_____%	

IV. NATERIAL REOUESTS

Please attach a sample of the following (for individually underwritten applicants only):

1. **individual application**

2. **individual policies or brochures**

3. **actending physician statement (if used)**

4. **lab report form (if used)**

5. **list ofuninsurable medical conditions, diagnoses for which coverage will not be offered (If a complete list is unavailable, please list the fifteen most common uninsurable conditions).**

6. **list ofmedical conditions requiring a temporary or permanent exclusion waiver (if used) (If a complete list is unavailable, please list the fifteen most common conditions).**

7. **list ofmedical conditions requiring a rated premium (if used) (If a complete list is unavailable, please list the fifteen most common conditions).**

V COMMENTS

_____

_____

_____

_____

_____

_____

_____

Please return survevin the enclosed. stamped enveloDe to: Jill Eden, Office of Technology Assessment, Health Program, United States Congress, Washington, D.C. 20510-8025.

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Appendix B

LIST OF ABBREVIATIONS and GLOSSARY OF TERMS

List of Abbreviations

ACLI	--American Council on Life Insurance
AIDS	--acquired immunodeficiency syndrome
APS	--attending physician statement
ARC	--AIDS-related complex
BC/BS	--Blue Cross and Blue Shield Associations
CFR	--Code of Federal Regulations
COBRA	--Consolidated Omnibus Budget Reconciliation Act of 1985
ELISA	--enzyme-linked immunosorbent assay
GHAA	--Group Health Association of America
HIAA	--Health Insurance Association of America
HIV	--human immunodeficiency virus
HMO	--health maintenance organization
MIB	--Medical Information Bureau
NAIC	--National Association of Insurance Commissioners
OTA	--Office of Technology Assessment (U.S. Congress)

Glossary of Terms

Adverse selection: The tendency of persons with poorer than average health expectations to apply for, or continue, insurance to a greater extent than do persons with average or better health expectations. Also known as antiselection.

Community-rating: A method of determining premium rates that is based on the allocation of total costs without regard to past claims experience. Community-rating is required of federally qualified HMOS.

Conversion privilege: The right to change insurance without providing evidence of insurability, usually to an individual policy upon termination of coverage under a group contract. Conversion privileges are mandated by the Consolidated Omnibus Budget Reconciliation Act of 1985 (COBRA) (Public Law 99-272).

Direct pay coverage: See individual health insurance.

Exclusion waiver: An agreement attached to an insurance policy which eliminates a specified preexisting condition from coverage under the policy.

Expe~ience-rating: A method of determining group premium rates based on the actual amount of claims payments made on behalf of the group in a prior period, usually the preceding year.

Federally qualified: An HMO that is certified as meeting the qualification requirements of the Federal Health Maintenance Act of 1973, as amended (42 U.S, C. Sec. 300e et seq.). Federally qualified HMOS must adhere to certain financial, underwriting, and rate-setting standards and provide specified, medically necessary health services.

Individual health insurance: Health insurance that covers an individual and members of his or her family without any association with an employer or membership group of any kind.

Individually underwritten groups: Small employee groups that usually include no more than 50 individuals. Small group underwriting requires that individual group members provide a statement of health and evidence of insurability.

Open enrollment: A health insurance enrollment period during which coverage is offered regardless of health status and without medical screening. Open enrollment periods are characteristic of some BC/BS plans and HMOS.

Preexisting condition: A condition existing before an insurance policy goes into effect and commonly defined as one which would cause an ordinarily prudent person to seek diagnosis, care or treatment.

Rated premium: A premium with an added surcharge that is required by insurers to cover the additional risk associated with certain medical conditions. Rated premiums usually range from 25 to 100 percent of the standard premium.

Risk classification: The evaluation of whether an insurance applicant will be covered on a standard or substandard basis, or not at all.

Self -payers: See individual health insurance.

Standard **risk:** A person who, according to an insurer's underwriting criteria, is entitled to purchase insurance coverage without extra premium or special restriction.

Substandard risk: A person that does not meet the normal health requirements of a standard health insurance policy and whose coverage is provided with a higher premium and/or exclusion waiver.

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