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.