

Physical examinations.



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SPECIAL HEALTH EXAMINATIONS FOR EXECUTIVES

A SAMPLING OF CURRENT PRACTICES.

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I. INTRODUCTION

The health maintenance of executives is becoming increasingly the subject of company interest, inquiry and action. This is so, however, not because management members as a group are less healthy than other people of comparable age, but because top managements have become deeply aware of the key role played by the entire management group in continuing the successful operation of a business enterprise. Accordingly, many companies are either setting up company-sponsored periodic health examinations for selected management members or are initiating needed improvements in already established programs. In doing so, however, they are finding (1) that providing the required facilities and determining the needed policies and procedures involve numerous complex considerations which do not lend themselves to precise measurement, and (2) that it is difficult to identify any widely accepted principles to serve as a guide to sound practice. The body of statistical evidence presently available is more suggestive than exact in its application to specific groups. Furthermore, no two company programs are exactly alike, and expressions of opinion vary widely, even within the medical profession, as to the degree of application of certain procedures.

The objective of this memorandum, therefore, is to present a review of prevailing practices, experiences and opinions among companies

having special health programs for management, and, on this basis, to offer certain conclusions which may help to promote better understanding and to aid in decision-making with respect to such fundamental questions as: who should participate, whether the program should be voluntary or compulsory, what the role of the company medical department should be, and the degree to which examination results should remain confidential.

The views represented herein are based on (1) a questionnaire canvass of current practice and opinion in 38 prominent companies in varying types of business, (2) interviews with 11 medical directors and 13 members of top management in 14 large companies with headquarters in the New York area, and (3) analysis of the most recent and pertinent published material on the subject. Details and statistical findings that might blur rather than assist understanding and decision-making have been deliberately eliminated. Emphasis has been given instead to the more important areas where common practice and agreement appear to be reasonably substantial, and the conclusions necessarily are principally concerned with the broad aspects of policy determination.

1. Executive Health and the Incidence of Disease

Insofar as it can be determined, no conclusive evidence has yet been assembled to show that executives are any less healthy than other personnel of comparable ages. While it is known that the stresses and strains to which an executive is subjected can affect his physical health, statistics compiled by the National Office of Vital Statistics show that

persons in the usual management category have a lower than average mortality. They are a highly selective group of individuals and may be better able to cope with these problems than others who may have different but equivalent stress from other sources. Average figures may not be applicable to any specific group, but in the absence of any positive contrary evidence, the findings would at least seem to discount the "scare stories" that have been published.

Like all other people, however, executives are susceptible to disease. The findings of four separate studies indicate, respectively, that of the executives examined 92.6 percent had some disease, 82.2 percent had "significant disorders," 49.5 percent had "major disorders," and 52 percent had defects needing treatment (see Table 1, Appendix A). Another study indicates the percentage of executives found to be entirely healthy and those in which significant new diseases were found in periodic health examinations (see Table 2, Appendix A), and three studies show the frequency with which newly diagnosed abnormalities are asymptomatic (see Table 3, Appendix A).

There being no "base line" for direct comparison, the studies made by each doctor or team vary considerably, and this is true of all statistical evidence that was found to be presently available. Such studies do indicate, however, the extent to which similar health conditions may be found among any given group of executives. Moreover, the finding that significant new diseases were revealed in one-third or more of those

examined, and that these abnormalities range from 55 to 69 percent asymptomatic, can lead only to the conclusion that the incidence of disease is substantial and many conditions may not be detected in their early stages without periodic health examinations.

2. Objectives of Special Health Examinations for Executives

In undertaking to provide for special periodic executive health examinations, the companies questioned appear, in each case, to have the same broad objective: to maintain the good health of executives who are important to the welfare of the company—for their personal satisfaction and well-being, for the preservation of their ability to effectively perform the responsibilities of their positions, and to extend their useful span of life. A company program to these ends involves preventive rather than curative procedures directed toward maintaining mental and emotional as well as physical health through anticipatory and educational measures. For the medical examiners involved in such a program, therefore, the emphasis is on (1) detecting diseases early in the course of their development when the probability of alleviation or cure is greatest, (2) evaluating the progress of existing diseases, and (3) giving competent counsel and guidance to executives on needed medical attention and personal habits that will lead to the preservation of their health.

In the implementation of these objectives, the approach of various companies differs considerably in the emphasis placed on specific practices. Despite such variations, however, there are many areas of

common practice and agreement. The most significant of these, which may be considered as providing sufficient basis for determining a reasonable course of action in initiating a special health examination program, are summarized below:

1. No persons reaching maturity are entirely free of disease.
2. Even the most comprehensive health examinations cannot be considered an absolute guarantee against sudden disability or death.
3. A superficial health examination may be more harmful than beneficial.
4. Competent medical advice should be sought in considering the details of a plan and procedures for health examinations.
5. The success of the program will depend in great measure on the examining physician or medical director; consequently, he must have the full confidence and co-operation of the management.
6. Neither the physician's professional ethics nor the executive's privacy should be violated by divulging information to others in the company, except with the permission of the examinee, or by an understanding with the executive prior to the examination.

With these points in mind as comprising the basic management approach, we consider in the following sections the details of company practice with respect to (1) the extent of participation from the management group, (2) the scope of examinations, (3) the use of findings and the role of the examining physician, (4) the most satisfactory agency to be used, and (5) the possible costs involved.

II. ASPECTS OF MANAGEMENT PARTICIPATION IN SPECIAL HEALTH EXAMINATIONS

1. Basis of Eligibility

The term "executive" is used in connection with special health examinations, although participants vary from those responsible for broad policy decisions to all members of the management and key nonmanagement personnel. As the following tabulation shows, the majority of companies answering our questionnaire limit participation in special health examinations to officers and general management. A smaller group extend them to middle management, and only a few include supervisors.

<u>Level of Management</u>	<u>Companies</u>
Officers and general management	30
Middle management (above general foremen)	16
Supervisors	4

Several companies have extended participation to lower management levels since the inception of their programs. Eight said they contemplate doing so. Of those interviewed most felt that there was ample justification for extending the program to all management and key people.

In several companies participation is determined by age. Usually, management members over 40, 45 or 50 years are eligible for comprehensive examinations, on the basis that this is the time in life when susceptibility to degenerative disease begins to accelerate. In a few

cases executives under 40, 45 or 50 years were scheduled for examinations on a biennial basis, while those above these ages had yearly examinations.

In most cases, key nonmanagement personnel and overseas transfers are included, and, in some, salary level or extra compensation in addition to salary is a determining factor. In one case, only those men who were considered as having sufficient potential for advancement were included. In another, invitations to participate were extended at the discretion of top management, and varied from year to year. It was agreed, however, that this type of selection left individuals in important assignments unprotected, and had caused some expressed dissatisfaction and very probably some hidden grievance among the excluded.

In some companies surveyed, different types of examinations were given to several levels of management, the more comprehensive applying to those at the higher level. The reasons given were based on (1) costs, and (2) the assumption that those at the higher levels constituted an older age group. It was conceded, however, that this second reason is only partially true.

The limitations in all cases suggest that the strongest reason for limiting comprehensive examinations to a group of top executives, or for differentiation between groups, is a financial one.

2. Justification for Limiting Participation

Differences in perquisites and privileges based on position are recognized and accepted generally among employees of all ranks, and the findings indicate that restricting extensive or special health examinations

to a limited group of management would not be generally viewed as discriminatory or constitute a source of serious dissatisfaction.

The decision involving the selection of a limited group of executives for special health examinations must rest on the value of the contributions that can be made by that group to the human relations and economic welfare of the company as related to the costs involved. There is no question that top management has a determining impact on the welfare and success of a company and its employees in every sense. Only in descending degree will this apply to all other management and key nonmanagement personnel and finally to all other employees. Accordingly, there seems to be justification for, and propriety in, the selection of a limited group of management for special health examinations, if these examinations are deemed to contribute favorably to the attitude, efficiency and useful span of life of those selected, and the company does not have the means to extend them on a broader basis. The extension of programs to lower levels of management by some companies having comprehensive examinations, and the inclusion of all management by others, are specific indications that the benefits thus provided have been viewed as justification for wide management participation. It would seem to follow, therefore, that maximum benefits are to be obtained when all key management receive special periodic health examinations and when there are no exclusions within the level of the management group selected.

3. Voluntary Versus Compulsory Participation

Reports from approximately 87 percent of the companies state that participation in their plans is voluntary or by invitation. Interviews in companies where participation is required elicited no expressions of opinion indicating serious opposition among executives to this arrangement. Those interviewed in companies having voluntary plans, however, expressed strong opposition to compulsion. They hold the conviction that such requirement smacks of paternalism, constitutes unwarranted intrusion into a delicate area of personal privacy and, as such, would be resented to the extent that the patient will seriously limit the thoroughness of the examination and the usefulness of medical counsel and guidance. As one doctor put it, "We do most willingly what we are not forced to do," and as another said, "We think the carrot gets better results than the stick."

This opinion and corresponding practice is represented in a large majority of the companies reporting in other studies, and is also strongly supported by the medical profession in published material on the subject.

4. Degree of Executive Participation in Voluntary Plans

In voluntary plans, the degree of executive participation appears to depend primarily on the executive's confidence in the examining physician, the facilities, and the confidential nature of the findings. While some executives are said to fear examinations, and some fear the effects of radiation from frequent X-rays, these do not appear to be controlling reasons for avoiding a well-planned and well-handled program. In some cases, executives

who have been attentive to proper health measures desire to continue under the care of a physician of private choice. Co-operating companies with voluntary plans reported the following participation:

Percent of Eligibles Participating	Number of Companies
60 percent or less.	3 ^a
70-84 percent	6
85-94 percent	10
95-100 percent	16
No reply.	3
91 percent	(Median)

^aTwo plans were in operation less than one year.

The Research Institute of America has stated that the participation in voluntary executive health plans is well over 90 percent and that the only "falling off" of participation was reported in the companies in which examination findings are not confidential. ("Protecting Executive Health," 1956, p. 22.)

These statistics cannot be taken entirely at facevalue since some of the companies having voluntary plans may apply sufficient pressure on the executives to cause participation to be considered, at least to some extent, as obligatory. On the other hand, some of the plans have been in process for a relatively short period of time—two for less than a year—and participation is expected to build up with time.

Medical directors interviewed expressed the opinion that executive health must be considered in the light of a long-term program. Participation and effective results will be forthcoming only as confidence in the

program is earned. This, they say, will occur from a clear understanding of company objectives, the nature of the policy and invitation to participate, the example set by the topmost executives, the reasonableness of the persuasions used, the medical facilities made available, the confidential use of findings, the experience of those participating, and the respect and confidence that is earned by the medical examiners.

III. SCOPE OF SPECIAL HEALTH EXAMINATIONS FOR EXECUTIVES

1. Age As a Factor

Although the exact time when the degenerative process begins varies with individuals and environmental influences, from a practical standpoint age 40 to 45 seems to be the age when physicians feel that significant degenerative processes begin to take place in most executives. The process then continues at an accelerated rate until death. This is illustrated by the findings of Dr. C. A. D'Alonzo, et al., illustrated in Table 4, Appendix A, which shows the prevalence of certain diseases among executives in several age groups.

These facts lead some companies to establish an age beyond which more frequent and more comprehensive examinations are given. In other cases, the physician, acting in his own discretion, will be influenced by the age factor to check more thoroughly or more frequently on certain indicated or suspected conditions. This is an area, therefore, in which it is felt that much will depend on the performance of the physician and thus requires company policy to permit all the time and flexibility necessary for physicians to exercise their judgment and apply the procedures indicated or needed.

2. General Content of Examinations

In nearly all cases special executive health examinations include the following:

Medical history,
Complete physical examinations,
Specified routine laboratory tests,
Other tests at the discretion of the physician,
Review of findings with the examinee,
Counseling on physical and emotional difficulties and health habits.

All but a few companies include these procedures, but in actual practice there is a variation of emphasis in applying them. In interviews with medical directors it was pointed out that the success of the program depends in great degree on the appropriate integration of all of these elements, giving proper and unhurried emphasis—beyond routine procedures—to individual differences among those examined. Statistical evidence presented in Table 5, Appendix A, indicates the findings of three medical groups with respect to the relative sources of information leading to diagnosis of newly discovered diseases.

3. Medical History and Body Examinations

Complete agreement that the history and body examination is the core of the health examination is supported by all the findings. These procedures develop the greatest yield in the discovery of defects which exist or may be suspected. All doctors seem to agree that adequate time should be devoted to insure that the history is complete in all respects and that the examination of the body is thorough.

Many companies use a questionnaire for obtaining medical history which may be filled in by the patient prior to the examination and discussed with him by the doctor at the time of the examination. This serves the dual purpose of conserving the physician's time and acting as a checklist against the omission by the physician of items that may be important. The "Cornell Medical Index" health questionnaire has been developed for this purpose and is being used successfully, although most companies with medical departments have elected to develop their own forms.

Some physicians reported that they avoid certain procedures in the body examination unless there is an "indication" of difficulty, but this is challenged by others who feel that the effectiveness of the examination may be compromised seriously unless all procedures are followed in each case and with complete thoroughness.

All physicians interviewed stressed the fact that a superficial examination will be more harmful than beneficial, since it may give false assurance and cause the neglect of needed therapy.

4. Laboratory Tests and X-Rays

Despite the high yield of the medical history and body examination, there are chronic debilitating conditions and incipient disease processes that can be discovered only by certain laboratory procedures and tests. Some of these conditions occur with such frequency that certain laboratory procedures are normally carried out routinely in the periodic

examinations. Other tests are employed to confirm or disaffirm indications or symptoms developed by the history and physical examination or to establish a "base line" in first examinations.

Details of the returns from the questionnaire respecting the scope of health examinations as reported by the 38 participating companies are shown in Appendix B. All of the laboratory tests listed are used either routinely or at the discretion of the examining physician, and 14 companies reported the use of additional tests at the physician's discretion. The tests predominantly used as routine, or required, are as follows—although each test listed in the questionnaire was required by at least one company.

Tests Required or Used Routinely	Percent of Companies
Urinalysis	97%
Hemoglobin	81
Complete blood count	78
Sedimentation rate	54
Serological blood test	49
Electrocardiogram	78
X-rays of heart and lungs	78
Blood chemistry (nonprotein nitrogen, cholesterol, blood sugar)	38
Proctoscopic examination	35
Detailed eye examinations	40

Interviews and written comments revealed that certain tests, indicated as optional, are actually used routinely at less frequent intervals, usually from two to five years. This was true particularly of proctoscopic examinations, exercise tolerance tests, blood chemistry and detailed eye examinations.

Available compilations of statistical evidence indicated that some tests give very low yields and that others fail to give results that are completely dependable. While there is a wide difference of opinion, certainly there is serious question within the profession as to the advisability of the "dragnet" of tests employed in some cases on a regular periodic basis. While very thorough testing is approved by many physicians for first examinations, the continued use of such comprehensive methods on a regular periodic basis is felt to be unjustifiable economically, difficult for the patient and perhaps difficult to defend from the standpoint of the possible excessive exposure to radiation from X-rays.

These same physicians argue, on the other hand, that the avoidance of relatively inexpensive tests of proved high yield is equally indefensible. This viewpoint, it was pointed out, is supported by medical experience which has shown that some asymptomatic diseases are discovered only by laboratory tests and that the diagnosis of such conditions is usually confirmed by laboratory tests.

While great reliance must be placed on competent medical advice as to the number and types of tests to be used, it would appear that a middle course is the most desirable and that the tests listed earlier, which are used on a required basis in a high percentage of the companies, are worthy of serious consideration in the determination of the laboratory tests that should be used routinely. In making a decision, consideration might be given also to carrying out a more comprehensive testing program

for first examinations in order to establish a "base line." In any event, the examining physician should be given full discretion to make, or the examinee should be advised of, tests other than those given routinely that are indicated to be advisable by history, body examination or symptoms.

5. Frequency of Examinations

Responses to the questionnaire show that 30 companies have yearly examinations and four have biennial examinations. Three of the remaining four companies have annual examinations for those over 40, 45 or 50 years of age, and one distinguishes in the same manner between two levels of management. Surveys conducted by others show approximately the same results. While the choice is somewhat arbitrary, it appears that yearly intervals have been selected as the choice for most companies as a safe practice. The greater incidence of disease among older individuals would appear to justify more frequent attention to this group, and if there must be differentiation in timing and thoroughness of examinations, age is considered a logical determining factor.

6. Time Required for Examinations

Reports of the time required for special executive health examinations by the co-operating companies varied from one-half hour to five days (see Appendix B, No. 11). Fourteen of this group using outside agencies show the examination time as from two to five days, ten of which are for three days. Sixteen companies report from one and one-half to four hours, five show one-half to one and one-fourth hours and three report one-half to one and one-half days.

In those companies in which periodic examinations are conducted by the company medical department, the average time spent for laboratory tests and the physician's examination and consultation appears to vary in most cases from one and one-half to three hours for a thorough and comprehensive examination. The time taken by clinics and hospitals is more in nearly all cases, but will vary widely with the arrangements made with the agency used. None of these estimates take into account waiting or travel time spent by the executive.

Medical opinion obtained indicates that an examination of the scope suggested earlier, with minimum tests as indicated for the majority of the companies, performed in a well staffed and equipped medical department, would require actual examination time of from one and one-half to three hours, varying somewhat with the individual and the time spent for consultation. The time for examination in clinics is normally greater—half a day being the usual minimum.

7. Records

All physicians agree that a record of past health examinations is a valuable aid in the evaluation of current health conditions. This is one reason why some doctors feel that the exclusion of young executives from periodic health examinations until they reach a specified age is not wise, and why outside agencies are often required to submit a report of findings to the company medical director.

Cumulative group records are the best means of checking the value or yield from certain procedures and can be used to a degree as a measure of the success of the program as a whole.

IV. THE EXECUTIVE-PHYSICIAN RELATIONSHIP AND EFFECTIVE USE OF THE MEDICAL REPORT

In carrying out a company program of special health examinations for management, no two factors are regarded as being more significant than the relationship between the executive and the examining physician and the use that is made of the medical report of examination results. In general, the companies replying to our questionnaire, the medical press and, particularly, members of the medical profession recognized these as key points in the success of any program.

1. Need for Rapport With Examining Physician

Of the companies participating in this study, 36 include consultation between the physician and executive as an essential element of their health examinations, and two leave this to the discretion of the physician. Without exception, all individuals interviewed placed great stress on the necessity for a close confidential physician-patient relationship, and careful, unhurried consultation and counseling is considered one of the greatest opportunities for long-term benefits from the program. The opinions expressed relate to the contention that the "whole man" must be considered. If his health is to be preserved, the mental and emotional as well as the physical aspects of his life, which are known to be interrelated, must receive attention.

Some physicians regard chronic nerve tension to be directly responsible for the majority of degenerative diseases and mental illness among executives. They also point out that the mere discovery of disease is of no consequence unless corrective measures are followed by the executive. Consultation with the examining physician who has established rapport and confidence can lead, it is said, to the alleviation of such difficulties and provide the opportunity for influencing the correction of habit, diet and other personal problems that seem to play such an important role in health maintenance and lead to the seeking of prompt attention between examination periods when symptoms arise or advice is needed.

2. Confidentiality of Examination Results

Answers to the questionnaire show that in five of 29 companies general examination reports are made available to the executive's superior. However, in two of these cases it was specified that the reports go only to the President or Executive Vice President. Of the 38 reporting companies, five said that when promotion is in view there is management consultation with the examining physician, and 10 said that health records are made available. Of these, three use both procedures so that only 12 of the 38 companies reported that records or general reports are sent to management when promotion is in view. Four state that the approval of the examinee is required.

These data show some, but not all, of the variations in practice. Actually, the meaning of "confidential" is differently interpreted, so that

statistical evidence from questionnaire answers above may not mean the same thing for all companies.

In most cases the actual records are not made available to anyone but the patient, the examining physician and perhaps the family physician. The findings revealed that in some cases, usually where outside agencies are used, no information whatsoever is required by the company. The participating executive is left entirely free to follow his own course of action, whatever that might be, free from any interference from the company, on the assumption that for an individual his health is a private matter. In such cases the company role is to make available a preventive type service that will assist and encourage executives toward personal health maintenance, since it is believed that better results will be obtained by the company and the executives concerned if the individual's privacy and judgment are respected in this manner. Answers to the questionnaire indicate that this procedure is followed by a substantial number of companies, since 14 of them who make use of outside agencies (not exclusively in all cases) do not require a report to the company medical staff.

In the interviews with medical directors, even in those companies having compulsory examinations, great stress was placed on the necessity for keeping examination findings and reports confidential. It was claimed, certainly with substantial validity, that the only one who should or can properly interpret a medical report is a physician, and that whenever possible this should be the examining doctor. All are in substantial

agreement, however, that in special situations, involving a disease that is now or will progressively seriously impair the health of an individual, an obligation exists to take the necessary steps for the protection both of the man and the company. In such cases, those interviewed report no difficulties in obtaining the permission of the individual to make a report to the proper management representative or to induce the executive to do so.

Where companies request an assessment of the general health of a candidate in considering his promotion or transfer to another assignment, again involving a responsibility to both the man and the company, the managements and doctors evidently do not feel that doing so is a violation of confidence, if it is understood by the executive prior to the health examination that this procedure will be followed. In most cases such reports consist of "yes" or "no" answers, or general health information presented normally on an oral basis by the medical director or examining physician. Our interpretation of the medical opinions expressed in published articles also leads us to believe that the above opinions are generally held by industrial physicians in spite of the fact that in actual practice the handling of medical findings does not conform in all instances.

Over all, the co-operation of participants is vital, and the program must be so carried out as to gain this co-operation most effectively. Thus it may be concluded that the examinations should be voluntary and the findings and records must, with exceptions listed below, be strictly confidential. Any other practice would appear to be a violation of the ethics

of the physician-patient relationship and an unjustified invasion of the employee's personal affairs, except under the following conditions, when it would be justifiable for the appropriate level of management to inquire or be notified by the medical director of the general health of an employee:

1 . When the examining physician detects and diagnoses a disease which is causing or will progressively cause serious impairment of health or hasten death.

2 . When obvious inefficiencies, poor judgment or deterioration in the relationships of an executive affect adversely, and without other apparent or conclusive reasons, the welfare of the company or the employees under his direction.

3 . When it is important for the company to know in planning promotions or transfers of executives to other assignments if this is a reasonable course of action from a health standpoint.

This procedure, which is actually followed in most companies, can, in the above circumstances, be justified on the basis of the inherent grave dangers and the obligations to the individual, the company and its other employees. In all such cases the procedures should be followed with caution—the physician obtaining the examinee's consent whenever possible—and in all cases the participants should know in advance when and under what circumstances the company would direct an inquiry about their health status to the examining physician.

V. AGENCIES USED FOR SPECIAL HEALTH EXAMINATIONS FOR EXECUTIVES

Company medical departments, clinics, hospitals and private physicians are all used by various companies for executive health examinations. All have advantages and disadvantages which are in some degree subject to the control of the company. Moreover, it is not always necessary to make a specific choice of one or the other. They are often used in combination and, in large companies with widespread operations, it is often necessary or practical to do so.

Where there is a sufficient concentration of employees to be served, the conduct of examinations by an adequately staffed and equipped medical department may be more desirable than outside arrangements, for several reasons. It can probably operate at less cost, can save executive time, and, because of the ready availability of the physician and his understanding of the executives' responsibilities and company internal situations, can render important continuous services to the individuals and the company.

Clinics are generally more expensive, may be more impersonal in approach, and offer less opportunity for the understanding of emotional disturbances and follow-up counseling. They do, if properly selected, have excellent facilities and give very thorough and competent examinations. Their use of specialists is believed by some companies to have distinct

advantages, and the confidential handling of findings has a strong appeal for many executives.

The private physician is normally more oriented to the alleviation and cure of disease than to its prevention, and for this reason is not generally considered to be the best agency for health examinations of the preventive type. If used, careful selection of the physician and general guidance by the company medical director or adviser will insure better services.

It is certain that no one pattern can be recommended—with assurance of best results—for application to all companies alike, but rather each must be tailored to fit the needs, circumstances and objectives of the individual companies. In making a choice, consideration must be given not only to medical staff and facilities, but also to policies and practices that will win the confidence and co-operation of the participants. These nonmedical features may be a controlling factor in the success of the plan. It is for this reason that many companies allow freedom of choice on the part of the participants.

Responses to the questionnaire show that the company medical staff and diagnostic clinics or hospitals, or both, are used more frequently, although all agencies are used and, in some cases, the choice is optional with the participants (see Appendix E, No. 6).

The principal features of the available agencies in terms of the specific advantages and disadvantages involved are outlined below.

1. The Company Medical Department

Advantages

1. Convenience: Appointments can be arranged more readily and travel time and expense for executives is minimized. It is easier to visit the doctor between examinations for advice or check of symptoms, and the opportunity for more frequent contacts with the physician helps to build a close physician-patient relationship.

2. More intimate knowledge of company policy and practice on the part of the physician: The company doctor also is in a position to know of the stresses and strains in the executive assignment, and can be more realistic in his appraisals and render more practical guidance.

3. Follow-up: The relative ease of contact can make follow-up more effective.

4. Use of outside laboratories or consultants: The services available in the company medical department can be augmented by this means. When comprehensive examinations are limited to a small group, it is not practical to establish complete facilities.

5. Dual obligation of the company physicians: Company medical personnel have a definite obligation to both the patient and the company, and are more available and better able to understand the implications of, and report on, unusual conditions.

6. Probability of lower costs: Examinations by a company medical department usually cost less when participation involves large concentrated groups of employees.

Disadvantages

1. Problem of adequate facilities: Provision of adequate facilities for comprehensive examinations may not be practical if the group eligible for such examinations is limited.

2. Question of confidentiality of medical findings: Executives may be concerned over the confidential treatment of findings. This may occur through disagreement with or uncertainty as to company policy or the availability of records, particularly to clerks in the medical department who will not only

have possession of the information themselves but may "leak" it to others.

3. Lack of confidence in the medical staff: This is not infrequent. Even the best physicians are human, and it is unlikely that they can satisfy everyone.

4. Administrative load: The company is involved in the entire administration of the program.

2. Clinics or Hospitals

Advantages

1. Complete facilities: Well chosen clinics or hospitals will normally have modern and complete facilities for the proper handling of every feasible test, which can seldom be justified in a company medical department.

2. Greater use of specialists: This factor is regarded by many persons as having distinct advantages.

3. Less question as to confidentiality of medical findings: Reports and findings are likely to be kept more confidential, and entirely so if no report is rendered to the company.

4. Simpler company administration: Administration of the program is less complicated than when a medical department is used as the sole agency.

5. Cost considerations: For small groups, costs are less, than for comparable service through a company medical department.

Disadvantages

1. Lack of familiarity of physicians with company situation: Outside physicians are not as well acquainted with the company and the position responsibilities or environmental circumstances of the executives as the company's internal medical staff is likely to be.

2. Detached attitudes on part of physicians: The examination is generally regarded to be more impersonal, and with several specialists involved a "production line" atmosphere may be created.

3. Inconvenience of contact with physicians: Frequent contact with the examining physician is more difficult, making a close personal relationship less likely. Counseling is limited usually to the examination periods, and interim contacts for advice on mental or emotional problems or the checking of symptoms is problematical.

3. The Private Physician

Advantages

1. Probability of favorable reaction by examinees: Executives may feel more relaxed with a private physician, particularly one of their own choice.
2. Less question as to confidentiality of medical findings: Reports and findings will be kept more confidential, and entirely so if no report is rendered to the company.
3. Close doctor-patient relationship Such a relationship is usually readily established, which may be expected to result in effective consultation and guidance.
4. Greater flexibility: Since private physicians are more readily available, flexibility in administration is afforded.

Disadvantages

1. Loss of "preventive" approach: A private physician is more oriented to the cure rather than the prevention of disease.
2. Less adequate facilities: Private physicians do not always have adequate facilities for comprehensive health examinations.
3. Risk of poor choice of physician: Executives may make a poor choice of physicians unless guided by proper medical advice.
4. Difficulty in getting reports: It is more difficult to obtain prompt or adequate reports from a private physician.
5. Lack of familiarity of physician with company situation: Private physicians are not as well acquainted with the company and the position responsibilities or environmental circumstances of the executive as the company's internal medical staff is likely to be.

4. Use of Several Agencies

As already indicated, large companies with management men dispersed over wide areas often find it practical or necessary to use more than one type of agency for the conduct of executive examinations. In such cases, general direction of the program is usually assumed by a medical director or consultant. Various degrees of control are exercised in the selection of clinics, hospitals or a panel of private physicians and in the direction or guidance given to these agencies. In some cases, reports are required, usually on standard forms, and are co-ordinated by the company medical department or central agency. In other cases, the executive is given a free choice, sometimes with cost limitations, and the findings of the examinations are completely confidential with the agency or, in the executive's discretion, a copy may be sent to his private physician.

Executive co-operation appears to be of such consequence in health examinations that provision for a free choice of agency would seem to be sound practice where desired. In such cases, or where scattered operations require the use of several agencies, consideration should be given to (1) carefully selecting the clinics or physicians to be used, (2) limiting the scope of tests given routinely after the first examination, (3) having a medical director or adviser act as liaison between the company and the clinics, (4) arranging for reports from the clinics or outside physicians to the company medical director or adviser, for his review, and (5) having the medical director or adviser provide counseling and other services between examination periods.

VI. COSTS

The cost of providing for special health examinations for management will of course vary with the locality, the time and scope of the examination and the agency used. Thus the cost reports obtained in our study are more suggestive than absolute. However, the answers to the questionnaire show average annual costs varying from \$25 to more than \$250 per executive (see Appendix B, No. 12).

Companies with medical departments generally report lower costs than those using outside agencies. For those companies co-operating in this study in which examinations are conducted in a medical department, including some which use outside consultants or laboratories in special cases, most costs fall within the range of from \$35 to \$100. The examinations in outside clinics in some cases involve in-patient or hotel or traveling expense, and in many cases the clinical tests are extensive, resulting in higher costs. Some companies have restricted the costs by contractual limitations or arrangements. Most of the costs for the 16 companies using clinics were found to run from \$100 to more than \$250.

VII. CONCLUDING COMMENTS

Assessment of the over-all value of special executive health examinations in terms of the benefits to both the individuals and the company concerned leads to the conclusion that such programs are both ethically and economically sound. The benefits derived may vary widely, of course, depending on the location, age of participants, conditions at home and on the job, the co-operation of the examinees, and the competence and thoroughness of the examining physician, including the degree of consultation and follow-up to induce executives to seek needed attention or to practice better living habits. This in no way detracts, however, from the validity of such points as the following, which constitute a forceful argument in favor of company action to support a program of this nature. ✓

1. In spite of difficulties in the direct application of available statistical data, there is much evidence of the discovery, alleviation and cure of asymptomatic disease by special examinations.

2. Individuals know, in their personal experience, that illness or disease may adversely affect their judgment, efficiency, and cordial and considerate relationships with others. It follows that this would be true in some degree of an executive with a physical or mental disability which may or may not be known to exist. It is not difficult, therefore, and seems entirely logical, that as a general rule an executive ✓

who is suffering from some undiscovered disease may suffer deterioration in his work efficiency and relationships. There are, moreover, specific cases where this has proved to be true and where the alleviation or cure of the ailment produced obvious improvement.

3. A well developed and conducted program will have human relations values, however difficult it may be to "pinpoint" the specific returns.

4. The wide and increasing installation of special health examinations for executives among the large companies and the continuation of long existing plans in others offers conclusive evidence of the value of these examinations. All of the companies co-operating in this study contend that, based on their experience, their executive health plans are regarded as beneficial, and, as has been reported, eight of them have tentative plans for extending coverage to lower levels of management. Some have already done so and several include all management and key non-management personnel through the supervisory level.

On the other hand, the appraisal of the possible benefits of comprehensive health examinations must be viewed with regard for the existing limitations. The practice of medicine is not an exact science. Prognostic and therapeutic limitations exist, and, as already emphasized, executive health examinations, no matter how comprehensive they may be, cannot constitute an absolute guarantee against disability or sudden death. They can only decrease the probability. Moreover, there is no body of

statistics available that establishes the dollar value of the alleviation or cure of disease, or the precise relationship between good health and executive efficiency.

Nevertheless, even within these limitations, it seems clear that a program of physical examinations for executives offers beneficial results for both the company and the executives themselves. Prerequisites of such a program are specific company objectives and adequate procedures and facilities. The real ingredients for success, however, are that the program be designed to win the confidence and co-operation of participants, that the examining physician fulfill his role with expertness, that he be allowed reasonable flexibility, and that he assume responsibility for judgment and action that will take into account all aspects of the health maintenance of the individuals involved. Companies should bear in mind also that, in view of the limitations above, evaluation of the benefits to individuals—in terms of their judgment and efficiency on the job—as well as the human relations values that are alleged to accrue from such a program, must be based on management judgment rather than on factual evidence.

APPENDIX A
FINDINGS OF OTHER STUDIES

APPENDIX A

TABLE 1

HOW HEALTHY ARE EXECUTIVES?

Findings	Reporting Authority
92.6% have some disease	Thompson and Staack
82.2% have "significant disorders"	Lutz
49.5% have "major disorders"	Franco
52.0% have defects needing treatment	Mallory

Source: Harold M. Golz, at 1956 Palm Springs Conference, Merchants and Manufacturers Association, Los Angeles, California.

TABLE 2

PERCENT OF INDIVIDUALS FOUND ENTIRELY NORMAL AND PERCENT FOUND TO HAVE SIGNIFICANT NEW DISEASES UPON PERIODIC HEALTH EXAMINATIONS

Number Examined	Percent Entirely Healthy	Percent in Which Significant New Disease Was Discovered	Investigators
500	25.0%	41.0%	Bolt et al.
500	10.6	32.6	Huth et al.
750	18.0	34.0	Elsom et al.
16,715 ^a	13.8 ^a	37.1 ^a	

^a

Includes nine additional studies not detailed in this table.

Source: N. J. Roberts, M. D., "The Periodic Evaluation of Health," in The Medical Bulletin, Standard Oil Company (New Jersey), Vol. 17, March, 1957, p. 2.

APPENDIX A (Continued)

TABLE 3

FREQUENCY WITH WHICH NEWLY DIAGNOSED ABNORMALITIES ARE ASYMPTOMATIC

Number of Individuals Studied	Percent of Abnormalities Asymptomatic	Investigators
500	67%	Huth et al.
750	69	Elsom et al.
707	55	Franco

Source: N. J. Roberts, M. D., "The Periodic Evaluation of Health," in The Medical Bulletin, Standard Oil Company (New Jersey), Vol. 17, March, 1957, p. 3.

TABLE 4

THE PREVALENCE OF CERTAIN DISEASES AMONG EXECUTIVES

Diseases	Rate Per 1,000 Executives ^a	
	Ages 35-49	Age 50 and Over
Peptic Ulcers	27.40	78.43
Skin Diseases	54.79	117.65
Heart Diseases	27.40	19.61
Hypertension	27.40	78.43
Arthritis and Rheumatism	27.40	58.82
Respiratory Diseases ^b ..	41.10	39.22

a

Based on the records of 124 executives including potential executives.

b

Represents respiratory diseases present only during the employment and annual physical examinations, not the total number for a specified time.

Source: C. A. D'Alonzo, et al, "The Prevalence of Certain Diseases Among Executives in Comparison with Other Employees," in Industrial Medicine and Surgery, Vol. 23, August, 1954, p. 357.

APPENDIX A (Continued)

TABLE 5

SOURCE OF INITIAL INFORMATION LEADING TO THE EVENTUAL DIAGNOSIS OF
NEWLY DISCOVERED DISEASES

History	Physical Examination	Laboratory Tests	Investigator
25%	53%	22%	Elsom et al.
6	78	16	Huth et al.
12	39	49	McCombs et al.

Source: N. J. Roberts, M. D., "The Periodic Evaluation of Health," in The Medical Bulletin, Standard Oil Company (New Jersey), Vol. 17, March, 1957, p. 7.

APPENDIX B
PRACTICES FOLLOWED BY 38 COMPANIES

APPENDIX B

**PRACTICES FOLLOWED BY 38 COMPANIES PROVIDING
HEALTH EXAMINATIONS FOR EXECUTIVES**

(Compiled From Answers to Questionnaire)

1. Companies Having a Program of Periodic Health Examinations

- a. For all employees of the company 15
- b. For employees in selected occupations only 12^a
- c. For executives only 23^b

2. Companies in Which Executive Examinations Are—

- a. More detailed than for other employees 30
- b. The same as other employees 8

**3. Members of Management Participating in Examinations That Are
More Detailed Than Those for All Employees**

- a. Officers and general management 30^c
- b. Middle management (above general foreman) 16^c
- c. Supervisors 4^c

4. Basis of Participation

- a. Voluntary 33
- b. Compulsory 5

a

It is presumed from information obtained in interviews that this count refers not only to rank-and-file employees but also to key specialists.

b

This count refers only to those companies where nonmanagement employees are generally excluded, but in some cases includes key specialists.

c

Participation varies in a few cases with age, salary, key nonmanagement personnel, overseas transfers, and in one case to eligibility for special executive compensation.

APPENDIX B (Continued)

5. Percentage Participation of Those Eligible

<u>Companies</u>	<u>Present Participation</u>
3 ^d	60 percent or less
6	70-84 percent
10	85-94 percent
16	95-100 percent
3	No data

6. Agencies Conducting Special Executive Health Examinations

<u>Agency</u>	<u>Companies</u>
a. Company medical staff	17 ^e
b. Company physician and outside laboratory	3
c. Private physician of company's choice	6
d. Private physician of employee's choice	5
e. Diagnostic clinic or hospital	16

7. Reasons for Selecting Executives for Special Examinations

(Replies summarized in the text.)

8. Reason for Using Outside Agencies or Clinics

- a. No medical staff in some locations
- b. To obtain more objective appraisal of physical condition
- c. More confidential use of findings
- d. More extensive facilities
- e. Company medical staff and facilities not adequate
- f. An executive emolument
- g. When required in the opinion of the medical director
- h. Better equipped, more experienced, efficient, better co-ordinated and lower cost
- i. Takes the work load off the company medical department

^d Two plans in operation less than one year.

^e Combination of agencies used by some companies—choice optional with executive in some cases.

APPENDIX B (Continued)

9. Normal Frequency of Executive Examinations

Frequency	Companies
a. Yearly (more than once per year when necessary, in 4 companies)	30
b. Every two years	4
c. Other. Three companies have annual examinations for executives over 40, 45, and 50 years of age and biennial examinations for younger executives. One company has an examination of different scope for two levels of management.	

10. Laboratory Tests Required Routinely, or Discretionary With the Examining Physician

Type of Test	Companies in Which Tests Are—	
	Required	In Discretion of Physician
a. Medical History	35	2
b. General Body Examination	36	1
c. Urinalysis	36	1
d. Hemoglobin	30	4
e. Complete Blood Count	29	6
f. Sedimentation Rate	20	12
g. Serological Blood Test	18	15
h. Blood Chemistry (nonprotein nitrogen, cholesterol, blood sugar)	14	19
i. Basal Metabolism	29
j. Electrocardiogram	29	6
k. X-rays		
1. Heart and lungs	29	6
2. Teeth	2	24
3. Abdomen	6	22
4. Gall bladder	2	25
5. Colon	4	24
l. Ballistocardiogram	1	23
m. Exercise Tolerance Tests	3	26
n. Phosphatase Tests for Prostate Malignancies	1	27
o. Proctoscopic Examinations	13	18
p. Detailed Eye Examinations	15	15
q. Review of findings and consultations with patient	33	2
r. Others	f

^f Fourteen companies report other tests used in the discretion of the physician.

APPENDIX B (Continued)

11. Estimated Average Time Devoted to Executive Examinations

<u>Time Spent</u>	<u>Companies</u>
1/2 to 1 1/4 hours	5
1 1/2 to 2 hours	8
2 1/2 to 4 hours	8
1/2 to 1 1/2 days	3
2 to 5 days	14 ^g

^g

Ten of this group report 3 days—only one 5 days.

12. Estimated Average Annual Cost per Participating Executive

<u>Cost</u>	<u>Companies</u>
\$ 25-49	8 ^h
50-99	10
100-149	4
150-249	6
250 and over	5
No data	5

^h

Only two companies report an average cost less than \$35.

13. Use of Findings

<u>Company Practice</u>	<u>Companies Reporting—</u>	
	<u>Yes</u>	<u>No</u>
a. Discussed by physician with executive	36	..
b. Outside physician normally reports to company medical staff	11	14
c. General report made by physician to executives superior	5 ⁱ	24
d. Company physician communicates with family physician	28	5

ⁱ One company specified that the report went to the president only and another to the executive vice president only.

APPENDIX B (Continued)

14. Summary of Criticisms Voiced by Excluded Executives

- a. Want the program extended to include them
- b. Examination not sufficiently complete.

15. Use of Findings When Promotion Is Considered

<u>Company Practice</u>	<u>Companies</u>
a. Consultation with examining physician	5 ^j
b. Review of existing health records by management	10 ^j

Three companies report using both procedures, so that a total of only 12 companies give some report to the management.

16. Criticisms of Executives Participating in Special Examinations^k

- a. Fear excessive exposure to X-rays
- b. Don't like the medical director
- c. Physician to be used should be optional with participant
- d. Additional elective procedures billed to executive
- e. Have enough sense to handle my private affairs
- f. Examination too time consuming
- g. Physician impersonal—will not deal with minor complaints
- h. Must wait too long for appointments
- i. Fear that findings will not be confidential
- j. Clinics are too impersonal

17. Changes Contemplated in Present Executive Health Examinations

- a. Eight companies have tentative plans to extend the comprehensive type program to lower management levels
- b. Several companies are concerned about the degree to which records should be used by management in connection with promotions
- c. Two companies are contemplating more formal policy to be reduced to writing
- d. Two companies are considering a more comprehensive examination than they now have

^j Executives permission is required in four companies.

^k Most companies report wide acceptance and enthusiasm among participants.

APPENDIX B (Continued)

18. Other Comments

Except for the comments under "17" above, all companies report satisfaction with their present special executive programs and intend to continue them as at present. Several express strong opinions that their special examinations have, both by early diagnosis of disease and by counsel with executives on emotional problems, saved lives and avoided many difficulties.