THE HEALTH AND HABITS OF HIGHER EXECUTIVES

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PART 1

Methods employed

Origins of a higher executive examination scheme

Fifteen years ago, the chairman of a large firm of building and civil engineering contractors approached one of us (T.) with the following proposal. He explained that each year his firm spent many thousands of pounds on plant maintenance; but in contracting work, physical assets form only a small part of the real capital of the firm. The real assets are the human beings, the administrators, executives and specialists, who by their skill create houses and factories, dams and harbours on virgin land in Britain and overseas. It seemed logical to him that the firm should spend at least a small sum on maintenance of its human capital.

To this proposal we raised three criticisms. First, the men might well object to enforced inspection. To this the chairman answered that the scheme should be entirely voluntary. This in our experience is desirable in any such scheme. If it penalizes, even indirectly, those who do not participate, it is bound to have serious limitations.

Next we discussed what should be done if we discovered anything amiss. Should the firm or the individual concerned or both be told? On this our view was clear. If the firm was told, either directly or

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indirectly, our chances of successful history-taking would be prejudiced. Accordingly, we made it a condition that findings should be communicated to the patient only and never to the firm without definite permission from the patient. The benefit to the firm is thus a general one, an indirect 'spin-off' as it were, in improved health and morale.

In practice, if there appears to be an indication from the health examination for some stay in advancement or a change of job, the matter is carefully discussed with the person concerned, and he is advised to talk things over with his superior or with the personnel department. We have never yet found patients unwilling to do this.

There are two exceptions to the rule of secrecy. The first concerns the patient's own general practitioner. If the need arises, the patient's permission is sought to communicate our findings to the general practitioner. This has never been refused, though not infrequently the patient has stated that he has never seen his general practitioner, or that the general practitioner is so busy that full discussion with him would be difficult. Some physicians undertaking executive examinations make it the rule, with the patient's permission, to write to the general practitioner after every examination. Our impression is that if abnormalities are found, these letters are welcomed; but that if the findings are negative, the letters are appreciated only by a minority. On balance, we favour writing only when there are abnormal findings to report.

The other exception is where a specific examination is requested by the firm to find out the fitness of an individual for a particular job. Here the situation must be explained to the individual *before* the examination starts, and at the outset it must be made quite clear that this is *not* a regular health examination and that the findings will be communicated to management.

Our remaining criticism of the general proposal was whether higher executive examinations were in fact worth doing. Clinical medicine has in the past been concerned with disease rather than health. It starts, as it were, in the post-mortem room and works backwards. We can diagnose only fairly gross deviations from normality and there is no corpus of knowledge about normal human beings and the early changes which may be the first signs of more serious ill-health. To this the chairman's reply was short and sharp. If we did not know, the sooner we started learning the better.

So a survey of the health of higher executives started in this firm of building and civil engineering contractors. After eight years it was extended to include the executives of firms belonging to a group industrial health service in a new town.

Frequency of examinations

For fortuitous reasons we decided to conduct the first group of examinations at annual intervals and the second at two-year intervals. The opinion of the patients on the examinations was studied independently by a social scientist who interviewed 114 men in each

group (Meadows 1964)*. In the first group seen at annual intervals seven wanted more frequent examinations. In the second group seen at two-year intervals the number was 20. There were more suggestions for improving the examination from the second than from the first group.

From the examining doctor's point of view, annual examinations are preferable, if they are practical. It is only after two or three examinations that enough is known about a patient for a clinical norm to be established; if this is spread over four or six years the real value of these examinations is reduced.

Occasionally, a patient is seen whose pattern of health and social behaviour is so steady that annual examinations seem a waste of time, and no ill result has followed from examining these patients every two years. These 'steady' subjects may be found at any age. It is not safe to say that the higher executive under 40 or 45 requires less attention than the older men. Indeed, often the younger men in responsible positions require more help than their seniors in the form of discussion about occupational, social and emotional problems, rather than conventional advice about health. Between 40 and 50 most men seem to come to terms with their environment and from then on they develop an equanimity which enables them to bear their burdens without reacting too strongly.

The work and the doctor

Properly carried out, a regular health examination is a fairly exacting process. First examinations seldom take less than one and a half hours (of which an hour or more is devoted to history taking and discussion). The doctor has to get inside his patient and build up a complete picture of the life he leads.

One of us (R.S.F.S.) for a number of years habitually examined four new patients in one day. This is too much. We have found that the ideal is two patients in a morning or afternoon session.

To spend the whole, or a large part, of one's life doing this type of work would, in our view, lead to inefficiency. The examination of so-called normal individuals can easily become routine and slipshod. We consider that the maximum optimum for regular health examinations is one or two half-days per week.

Who should conduct the examinations?

Examinations may be conducted by an industrial medical officer or specialist in industrial medicine, a general practitioner, or a consultant in internal medicine or some other speciality. The great majority of the examinations, whose results are here described, were

conducted by two of us who specialize in industrial medicine; one of us is a university teacher and research worker; the other is a medical administrator with a background of general medicine and psychiatry. To both of us, it has seemed that a wide general knowledge of medicine and an extensive experience of humanity outside the hospital are the most useful qualifications. A knowledge of conventional psychiatry is sometimes helpful, but no more than a knowledge of cardiology, gastro-enterology, orthopaedics and dermatology. A psycho-analytical approach could be disastrous. The people under examination are for the most part well-balanced un-neurotic straightforward human beings, such as the psychiatrist seldom sees in his consulting-room. By conventional standards, most of them are as sound in their personalities, or even sounder than we who examined them.

The physician outside the firm enjoys the advantages of detachment and non-involvement in the firm's power structure. He can talk to the chairman or managing director frankly and freely. At lower levels, there is less fear that he may inadvertently reveal information under subtle pressure to managerial colleagues. This is well shown in the attitudes of those examined. In the opinion study by the social scientist, 82 (36 per cent) said it would make a difference to them personally if they had been examined by an industrial medical officer. Of these, 74 preferred to be seen by a specialist, 48 because he is thought to be more impartial and 26 because a specialist was likely to be technically more efficient. Nevertheless, we know of whole-time industrial medical officers who are successfully carrying out a programme of higher executive examinations. This reflects great credit on their capacity to establish their integrity within the power structure of their own organizations.

The doctor whose main work lies in another field can find great satisfaction in detailed unhurried history-taking and examination which this type of work involves. The consulting physician seldom allocates more than half an hour per patient, while the general practitioner cannot normally hope to devote more than a quarter of an hour to an interview and examination. In our experience, the value of the individual health examination varies directly with the time devoted to it up to a maximum of one-and-a-half to two hours, always provided it is properly structured and that history taking is not allowed to degenerate into waffling discussion. Time and again, we have found that the answer to a perplexing social or occupational problem emerges near the end of an interview. The luxury of an unhurried and complete history-taking and examination has convinced us that lack of time is a major enemy of good medicine.

Production of hypochondriasis

It is often asserted by those with little experience of regular health examinations that they produce hypochondriasis in the subjects concerned. In our experience, the reverse is the case. We have watched initial hypochondriasis disappear over the years after repeated careful examination and reassurance.

In the opinion study, of the 86 who admitted to being worried about their health before the first examination, 47 said they worried less after being examined and only one admitted to being more worried. Of the 142 who said they had no anxieties about their health, 27 said subsequently they had been reassured by being examined and only two were made more anxious.

We have recorded the number of complaints registered by subjects at each examination under two headings: those produced spontaneously and those discovered on probing, i.e. enquiring about specific symptoms. Table I shows how the number of such complaints declines with repeated examination.

TABLE I

PATIENTS WITH COMPLAINTS AT FIRST AND AT SUBSEQUENT EXAMINATIONS

		Complaints					
		None		*Yes*			
				*Spontaneous**		*On probing**	
	Number	*Number*	*Per cent*	*Number*	*Per cent*	*Number*	*Per cent*
First examinations ..	250	23	*9*	164	*66*	195	*78*
Subsequent examinations	638	286	*44*	151	*24*	233	*37*

*These headings are not mutually exclusive as many subjects had two or more complaints.

Immediate value of regular health examinations

The higher executives here studied appear to be above the average in general health. Their work seems to involve a survival of the fittest. Those who can work harder than the rest, who are more willing to strike out adventurously on new projects and to see them through, and are ready to shoulder responsibility appear to be those who are endowed with a more than average measure of physical stamina.

This is well shown by their record of absence from work for reasons of ill-health (table II). In the first group 65 per cent said

they had had no time off for sickness in the previous year. In the second group 46 per cent had had no sickness absence in the previous two years.

TABLE II

TIME OFF FOR SICKNESS MENTIONED BY PATIENT AT SUBSEQUENT EXAMINATIONS

Group	*Sickness absence record*									
	None		*1–2 days*		*3 or more days*		*Not recorded*		*Total*	
	No.	*Per cent*	*No.*	*Per cent*	*No.*	*Per cent*	*No.*	*Per cent*	*No.*	*Per cent*
Seen at yearly intervals ..	340	*65*	65	*12*	120	*22*	2	*1*	527	*100*
Seen at 2-yearly intervals ..	51	*46*	14	*13*	44	*40*	2	*1*	111	*100*

This low sickness absence rate may be influenced by the attitude of the executive to his job. A very high proportion said they enjoyed their work (table III).

TABLE III

ATTITUDE OF 250 PATIENTS TO THEIR WORK

	No.	*Per cent*
Happy ..	229	*92*
Not happy	21	*8*

TABLE IV

PROPORTION OF PATIENTS REFERRED TO GENERAL PRACTITIONERS OR SPECIALISTS OR ELSEWHERE AT FIRST AND SUBSEQUENT EXAMINATIONS

	First		*Subsequent*	
	No.	*Per cent*	*No.*	*Per cent*
Own G.P.	16	*6*	16	*3*
Specialists	19	*8*	49	*8*
Elsewhere*	29	*11*	22	*3*
Total of examinations	250		639	

*Mostly dental.

We detected little potential lethal disease, but we did find a substantial amount of untreated ill-health. This may be expressed in terms of referral to general practitioners and to specialists (table IV).

The examination

Technique of health examinations

Every initial examination must start with a short exposition of its

purpose, and details as to the confidentiality of the results.

At first, we took histories and recorded our results on blank foolscap sheets. We soon found this had disadvantages. In particular, comparison with findings on previous occasions involved hunting through old notes. Moreover, essential questions were from time to time not asked, simply because there was no regular check list. So recording schedules were devised.

At first these were printed in blue or black, but these proved too confining. So pale grey was substituted. It was then easy to run over the set lines, and to follow up any clue fully, wherever it might lead.

The recording schedules have been subject to minor revisions. The final version, illustrated in figures 1 to 5, consisting of one single and two double foolscap sheets, covers the initial examination and four subsequent examinations. These revised schedules have been used by four other physicians, none of whom have suggested any major modifications.

We are unable to better it as an *aide-mémoire* for the physician in caring for the individual patient—helping him to make a diagnosis, to assess changes in health, environment or personal habits and finally to decide what action to take. It also serves an additional purpose. It provides the data for epidemiological enquiry—elucidating facts about the group. For example: What type of men are they? How much do they smoke and drink? How many have high blood pressure? Is blood pressure related to stress at work and so on.

The schedules could be modified to allow data to be coded more easily for statistical analysis. By precoding much time can be saved and the data can be made more complete, as gaps are noticed at the time of recording. Nevertheless, the first purpose of the record—to help the doctor in his care of the individual patient must not be jeopardized by too rigid notetaking for statistical purposes.

Full initial history

This is recorded on pages 1 and 2 (figure 1), which are printed on the front and back of a single sheet, and in the first column of page 3 (figure 3). Page 3, which deals with the 'organ and habit' history, is repeated twice, so as to give space for five consecutive examinations. It is printed on the *inside* of a double folded foolscap sheet, on the outer side of which is page 1a, repeated twice—the purpose of which is dealt with below.

The following explanatory notes deal with points which may not be manifestly clear from the reading of the schedule:

1. *Age—estimated and actual.* This is recorded later at each examination.

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FULL INITIAL HISTORY **1**

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Name: Date:

Age { Estimated: / Actual:

Home address:

Work address:

Family Dr.:

Address:

M. S. W. D.

Spouse's health

Nature of present work:

Children:	Sex	Age	Health
how many			
lost any			

Professional qualifications:

(If nil) Design or accident:

Main complaints: (If any)

Past history:

Childhood

Usual childish ailments

Any major illnesses in life:

Heart

Lungs

Stomach

Ts. and As.

Any other operations

Accidents

Abroad

Tropical ill-health

Services

X-rays

Life insurance examination

Firm's pension scheme

Figure 1

Recording schedule for regular health examinations

Full initial history record. Pages 1 and 2 are printed on the front and back of a single foolscap sheet

	2
Education: Father's occupation Place School(s) Leaving age Post-school education Age on starting work	
Work history: First job Subsequent jobs Firms Places Duration Special features	
Present work: How long with firm Details of present job Does it keep him fully extended Happiness in work Hours Work taken home Strain Sources of strain, if any Length of annual leave Relations with colleagues	
Family History: Father Mother Siblings Wife, Children — see above	
Home circumstances: Satisfaction in residence Satisfaction in home life Hobbies, sports, interests, reading, etc., Car	
Organs Habits (see sheet 3)	

Visual impressions of the estimated age have proved of little practical value in assessing general health.

2. *Family doctor.* Sometimes 'none'. Often 'not met' . . . this matter is 'left to the wife'. Occasionally the doctor is a family friend or neighbour.

3. *M.S.W.D.* 'Married, single, widowed or divorced'—ring as appropriate. If 'W' or 'D' this is followed up at once. The emerging history may be of great importance.

4. *Spouse's health.* This is of great importance. Many hidden tragedies emerge here, often with stories of quiet heroism and devotion. But most higher executives are happily married, with happy healthy families.

5. *No children.* Sterile couples are often exceptionally devoted and surprisingly happy.

6. *Main complaints (if any).* Full details are recorded and the question repeated until no more complaints are obtained. In our statistical analyses, complaints recorded here are separated from those which emerge later on 'organ questioning'. The latter are described as 'complaints found on probing'. A dogmatic assertion of complete fitness is often found to be untrue on careful questioning or on probing. A qualified assertion of fitness must always be fully investigated, to find the reasons for the qualifications.

7. *Usual childish ailments.* Such a record is almost valueless in practice.

8. *Abroad, tropical ill-health and Services.* Of great importance and help. Causes of invaliding out of the Services should always be probed. Neurotic reactions to Service life are likely to indicate subsequent trouble.

9. *Home circumstances.* Record the mortgage situation if the home is owned. For 'car' record 'own' or 'firm's' or both. Record total number of miles motored per year; if over 30,000 p.a., signs of strain are not unusual.

Organs and habits. These questions are asked at every examination (figure 3). Often the answers on each occasion will be precisely the same, even the same jokes being made. When page 3 has been completed, a fairly complete initial picture of the patient and his working and home environments should have emerged. If, at the completion of the history, the question is asked: "Is there anything else I ought to have asked you?", the answer has been invariably: "No". Pointers for special examination will also have emerged.

Physical examination record. This is recorded on pages 4, 5, 6 and 7 (figures 4 and 5), which are printed on both sides of a double folded foolscap sheet. The record is such that the findings at the first and four subsequent examinations can be recorded across the page, so that comparison is easy and changes are immediately detected.

Medical students are taught to examine by systems. The method we have adopted is to examine the whole body in the following order:

Head — neck — front of chest — back of chest — arms — abdomen and genitals — back — legs — feet — urine specimen taken — wire up for ECG — test urine while ECG machine is warming up — ECG — clean off electrode jelly — get dressed.

This wastes a minimum of time and ensures that everything is

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HISTORY PROGRESS RECORD **1A**

Name:

Age:

Date of examination	2	3
General health progress:		
Health since last examination		
Time off work for sickness		
Any ill-health at all		
Nature		
Doctor called		
Doctor's diagnosis, advice, treatment		
Progress of past conditions		
X-rays since last seen		
Other special examinations since last seen		
Environmental changes:		
Changes in work (up, down, indoors, outdoors)		
Attitude to work		
Abroad since last seen:		
Where?		
For how long?		
Any sickness associated?		
Family health:		
Parents		
Wife		
Children		
Family happiness		
Home (changes in location, people, other)		
New address		
New family doctor		

Figure 2

Recording schedule for regular health examinations. History progress record. This is printed twice on the outer side of a double folded foolscap sheet, with the 'organ and habit' history inside

Name: Age:		ORGANS HABITS 3
Date of examination	1	2
Organs: Catarrh Cough Phlegm (nature) Wheezing Tightness Shortness of breath		
Aches and pains: Chest Abdomen Back Legs Arms Elsewhere Headaches Eyesight When last tested Faints, attacks, dizzy turns		
Indigestion: Relation to food Particular foods Wind Bowels Opening medicine Piles Water trouble Nicturia Other		
Habits: Tobacco: Cigarettes Pipe Cigars Alcohol per week: Beer Spirits Other Appetite Cooked meals per day Luxury meals per week Weight changes (patients est.)		
Exercise: At work Games Garden Journey to work Relaxation Sleep Sedatives, hypnotics Sex Other		

Figure 3
Recording schedule for regular health examinations. Organ and habit history. This is printed on the inner side of a double folded foolscap sheet, ruled up to give five columns for the first and four subsequent examinations. The 'history progress' record is on the outside

covered. The record is designed to fit this order of examination.

Mental evaluation. The psychiatric headings on page 7 of the schedule have been used as 'pointers' and memory aids. Often entries are made only under two or three of them, most commonly general intelligence, drive and attack and mood. When more than six positive entries are made, the patient is usually a somewhat disturbed personality.

The mental health 'pointers' are familiar enough to the practising psychiatrist. They are fully dealt with elsewhere (Taylor, S. J. L. 1940). Under each pointer a simple value-judgment can, with a little practice, easily be made, using a three- or five-point scale. For example, general intelligence can be scored on a five-point scale thus:

Highly intelligent
Above average but not in the highest grade
Average for the group under consideration
Below average but not grossly stupid
Stupid or painfully stupid

Anxiety, on the other hand, needs only three points:

Absent
Justifiably anxious
Unjustifiably anxious

The following call for a special note:

1. *Talents and special skills.* Frequently none is detected, despite high general intelligence.

2. *Drive and attack.* A three-point scale gives all that is needed. This is a personality feature of great importance in the higher executive. It must be distinguished carefully from '*Agressiveness*' which in major degrees is a mark of the psychopath.

3. *Mood.* Is the mood predominantly manic or depressed, or on a steady middle line? If manic or depressed, are there mood swings? If so, is their frequency a matter of days, weeks, months or years?

4. *Anxiety.* Is it justified and within normal limits, or unjustified and neurotic? Fear of flying is a useful pointer to pathological anxiety.

5. *Hysteria* and *hypochondria* usually march hand in hand. Often they are associated with manic-depressive mood swings and periods of great drive and attack, alternating with inertia. A three-point scale is adequate.

6. *Obsessional and meticulous.* A tincture is invaluable; too much inhibits useful action. Again a three-point scale is all that is needed.

7. *Paranoid.* Usually a sign of, and an excuse for, failure; occasionally it is justifiable and curable by environmental adjustment.

8. *Schizoid.* What has been said about 'obsessional and meticulous' applies equally here. The mildly depressed schizoids are among the best people for seeing through difficult jobs to the end.

9. *Psychopathic.* Psychopaths rarely find their way into the ranks of the higher executives. They are either aggressive or feeble. The feeble ones stay at the bottom of the ladder. The aggressives are occasionally selected for higher

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HEALTH EXAMINATION RECORD **4**

Name:

Age:

Date of examination	1	2	3	4	5
Height: ft. ins. / Weight: stone lbs. / ideal weight:					
General Appearance: Build; Skin; Hairiness; Striking features; Looks in relation to age (estimated age); Gait and posture; Other					
Eyes: Acuity: Distant (R.L.6/?) Near; Glasses; Arcus; Eye colour; General appearance (Exoph., anaemia, movements)					
Pupils: Light, accommodation; State in dark { D M S					
Fundi: Lens needed for (R.L.); Disc. Colour, pit, margin; Arteries; Veins; Fundus background; Other					
Ears: Acuity (R.L. ins.); Wax; Drums (m.e. disease); Other					

Figure 4

Recording schedule for regular health examinations. Physical examination record.

This is printed on the front and back of the first page of a double folded foolscap sheet.

5

Date of examination	1	2	3	4	5
Mouth: Teeth Dentures: Partial Complete Gums (pyorrhoea)					
Tongue: Clean Furred Colour Other					
Palate Tonsils Pharynx Other					
Nose:					
Face: Movements Sensation Other					
Neck: Glands Goitre Other					
Chest: **Lungs:** Shape Emphysema Movement Expansion (ins.) Percussion Auscultation Other					
Heart: Apex beat Pulsations or thrills Auscultation Bases Other					

6

Date of examination	1	2	3	4	5
Arms: Power Wasting Reflexes (B., Tr., S.) Tremor Nose-touching					
Nodules Clubbing Hands Nails					
Pulse: Rate and quality Anxious tachycardia Exercise tolerance Other					
Blood pressure: Special features Artery state Other					
Abdomen: Reflexes Fat Palpation Bladder Groins Testes Hernia Other					
Back:					
Legs: Power Wasting Reflexes (K., A.) Plantars					
Clonus Sensation (P., C.W., T.F.) Varicose veins Swelling of ankles Flat feet					
Toes (Corns, deviations) Nails Skin temperature Pulses Other					

Figure 5

Recording schedule for regular health examinations. Physical examination record—continued.

This is printed on the front and back of the second page of a double folded foolscap sheet, preceded by the two pages shown in figure 4. Thus, on a folded foolscap sheet, the full physical findings for five years can be recorded.

7

Date of examination	1	2	3	4	5
Skin:					
Urine: Sugar Albumen Acetone Pus S.G. Other					
E.C.G.					
Mental and General summing-up General health General intelligence Talents Special skills Drive and attack Mood Anxiety Hysteria Hypochondria Obsessional and meticulous Paranoid Schizoid Psychopathic Het. hom. ratio Agressiveness Other					
Advice given:					

rank because their aggression is mistaken for drive and attack. In a good organization they are usually quickly detected and removed. In a bad organization they ensure that it remains bad.

10. *Het. Hom. ratio.* This is the ratio of heterosexuality to homosexuality. Every organization will include a few immature flitting heterosexuals and a few homosexuals, usually well-sublimated. The latter may often be happily married, with large families. But the link between homosexuality and alcoholism is worth remembering. Here, one should accept people as they are, and not attempt to make them face what they are already dealing with satisfactorily. But the flitting heterosexual who involves his colleagues' wives should be advised to keep his work and sex-life separate.

Re-examinations

History progress record. At the second and subsequent examinations, the history-taking starts on page 1a (figure 2), which covers the outer sides of the double foolscap sheet with the 'organ and habit' history (page 3, figure 3) inside. It then continues in the second and subsequent columns of page 3. The examination findings are recorded in the second and subsequent columns of pages 4, 5, 6 and 7.

Page 1a is straightforward. The patient is cross-questioned about his health by five different approaches:

1. Health since last examination
2. Time off for sickness
3. Any ill-health at all
4. Visits to the doctor
5. The organ history

Often it is only on the fourth or fifth approach that a positive finding is obtained.

Under 'progress of past conditions', it is worth making an initial note of what these past conditions were, so as to save referral back to pages 1 and 2 and the first summing up on page 7.

Environmental changes. Changes in work such as promotion or demotion or even a take-over by a large firm are well worth recording. They may be associated with a completely different attitude to work and consequently better or worse health. While there is little the physician can do to alter an adverse work environment, in such cases he can often help the patient by discussing how best to deal with the new situation. Similarly it is helpful to record and discuss changes in family health and home environment. Questions about the wife's rheumatism or a problem child may open up a discussion which will relieve tension or suggest a new line of action.

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