TUBERCULIN-TESTING OF A SCHOOL POPULATION (MUSSELBURGH, 1953)

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In recent years the results of tuberculin surveys in England and Wales have been published, and have shown differing degrees of tuberculous infection in different areas of these countries.

The unenviable post-war record of tuberculosis in Scotland is well known. Even after the belated downward trend in mortality had occurred, the notifications continued to increase, a trend which still persists. In view of this alarming situation, it seemed to us that a survey of tuberculin sensitivity in a Scottish area was overdue. It was thought possible that such a survey might show significant differences from the English and Welsh ones, and might conceivably shed some light on the perplexing problem of why the Scottish notification rate has remained proportionately high. No survey of this type has been published from Scotland, and the need to rectify this situation seemed to us to have some urgency, as it is obvious that the impending use of B.C.G. on a wider scale in school-leavers and in tuberculosis contacts will rapidly obscure the true picture of natural tuberculin sensitivity.

Musselburgh can be taken to be a representative Scottish burgh, with a population, including the surrounding area, of 21,800. It lies near Edinburgh, and, while there is a good deal of daily migration to this city, this is not so great as it might be, because there is adequate scope for employment in the town itself. In no sense can it be regarded as merely a dormitory for Edinburgh.

It is not thought that milk-borne bovine tuberculous infection has influenced our results to any great extent. The milk supply has been almost entirely heat-treated for the past ten years, and for some years before that the bulk of the milk sold in the town was retailed from a few dairies which employed heat treatment.

Housing in Musselburgh had been unsatisfactory until the last five or six years, since when much has been done to rehouse the overcrowded slum and tenement dwellers. The housing conditions can be taken to represent a typical picture of Scottish urban life, where overcrowding and poor conditions are commoner and more severe problems than in England.

Methods Used in the Survey

Propaganda was thought to be of great importance in order to secure the co-operation of the parents of the schoolchildren. The local newspaper generously gave space to the subject, and for several weeks before the campaign began articles were published explaining the objects of the scheme and describing the performance of the tests. Various organizations, town council, churches, and political clubs gave valuable support. All

the general practitioners were informed of the plan and asked to lend their weight to it.

Each schoolchild was given a leaflet to take home. This explained the tests and contained a consent form which the parent was requested to sign. If consent was not given at the earliest opportunity the child involved was shown the test being carried out and asked to tell his parents how simple it seemed. Thereafter, remarkably few parents withheld their sanction.

The positive reactors were x-rayed by the mass radiography unit at school, or in near-by convenient centres. The negative reactors who were within two years of school-leaving age were offered B.C.G. vaccination.

The positive reactors were given letters of explanation to their parents. In these, the significance of the positive test was briefly explained and the parent was given an appointment for interview. This interview was conducted by one of the doctors or by a health visitor, and details were obtained of the child's previous health, the housing conditions, and the home contacts, with their ages and occupations. Time-tables of available x-ray sessions in the town were given to the representatives of the family, and they were asked to try to ensure that all the people in the house were x-rayed. The response to the invitation to be interviewed was astonishing: 95% of those invited were seen and questioned. The response to the invitation to be x-rayed was less impressive, partly because not enough sessions of the mass unit could be secured at hours which did not clash with work.

Skin Tests Employed

The first test was a modified tuberculin jelly test. The skin between the scapulae was cleansed with acetone, six light strokes with flourpaper were given, and the jelly was applied in the form of a T. Control jelly was applied near by and the whole area was then covered by adhesive, which was removed at 48 hours (Dick, 1950). The test was finally read on the fifth day (Lendrum, 1951).

The criteria for acceptance of a test as positive were: (1) erythema and/or induration in the shape of the original application; (2) at least six papules or vesicles in the shape of the original application; and (3) no reaction at the site of application of the control jelly.

In negative reactors to this test a Mantoux test was carried out on the skin of the forearm, using 0.1 ml. of 1 in 100 old tuberculin (1 mg. O.T.). The test was read on the third day, which is thought to exclude some false-positive reactions seen if the tests are read on the second day. The criterion used for a positive reaction was palpable induration 5 mm. or more in diameter.

All the tests were performed and read by a small team of doctors and one experienced tuberculosis health visitor. Where any doubt existed in the interpretation of these tests, consultation between several observers took place.

Statistical Criteria.—Differences are not held to be significant if they are less than three times the standard error of the difference.

An Analysis of the Completeness of the Survey

An attempt was made to determine the tuberculin sensitivity of every schoolchild between the ages of 5 and 15 years in the local authority schools of the Musselburgh area.

Table I examines the success of this attempt by age groups and sets out the lapses by cause. The three age groups chosen correspond as nearly as possible to the three types of school: infants 5 to 7, primary scholars 8 to 11, and secondary scholars 12 to 15.

The total number of children tested (3,282) is 98.2% of the 3,342 children whose parents consented to testing (93.5%

of all the children on the school rolls). This compares favourably with the figures for the Calder Valley (Keidan *et al.*, 1952) and the Rhondda Fach (Jarman, 1953) surveys. The figures for these surveys are set alongside those for Musselburgh in Table II.

In the Rhondda Fach Jarman (1953) found that most of the lapses occurred in the younger age groups. He thought that "the refusal of parents to have their children skin-tested is mainly determined by the age of the child." Our experience on this point is quite strikingly different from his, and to bring this out the Musselburgh figures have been superimposed on Jarman's graphs (Fig. 1).

Effect of Previous Tuberculosis Prevention Work on the Present Survey.—Of the children who were found to be tuberculin-positive during the survey, 101 (64 males and

TABLE I.—Acceptances and Lapses in Musselburgh Schoolchildren by Age Groups

Group	Age*	Total No. on School Rolls	No. Completing the Tests	No. of Lapses, with Reasons			
				Consent With-held	Absent from All Tests	Consent Received but Test Incomplete	
						1st Test Not Read	1st Test Neg. 2nd Test not Read
Infants ..	5-7	1,097	1,004	59	18	7	9
Primary scholars	8-11	1,349	1,257	59	23	6	4
Secondary scholars	12-15	1,064	1,021	35	8	0	0
All groups		3,510	3,282	153	49	13	13

* Age is here reckoned as the age of the child on the day of the administration of the first test or, where no tests were given, on the day when the first test was performed on the child's classmates.

TABLE II.—Response of Schoolchildren in Three Different Tuberculin Surveys

Area	% on School Rolls Who Completed Tests	% Present at First Test Who Completed Tests	% Whose Parents Consented Who Completed Tests
Calder Valley ..	85	Not recorded	95.6
Rhondda Fach ..	71.9	76.0*	85.1*
Musselburgh ..	93.5	95.4	98.2

* These percentages are calculated from the published figures 3,410 of 4,484 and 3,410 of 4,004 respectively.

FIG. 1.—Percentage of children present on first day of test who completed each stage of course.

FIG. 2.—Percentage of tuberculin-positive male and female schoolchildren in the area.

TABLE III.—Sex Variations in the Tuberculin-positive Rate by Year of Age

Age	Males			Females		
	No. Tested	Tub. Pos.		No. Tested	Tub. Pos.	
		No.	%		No.	%
5	161	48	29.8	155	35	22.6
6	173	41	23.7	192	55	28.1
7	146	36	24.7	146	40	27.4
8	139	34	24.5	159	46	28.9
9	157	49	31.2	146	54	37.0
10	171	60	35.1	164	54	32.9
11	160	50	31.3	123	57	46.3
12	186	91	48.9	155	70	45.2
13	129	69	53.3	116	49	42.2
14	166	88	53.0	139	53	38.1
15	57	32	56.1	41	17	41.5
Total	1,645	598	36.4	1,536	530	34.5

37 females) were known to have been tuberculin-negative when seen as contacts and to have converted to positive after B.C.G. vaccination. Since we cannot estimate how many of these children would have become positive without B.C.G. vaccination they are excluded from the main analysis of results. The difference this makes to the percentage who were positive was fairly evenly distributed over the age groups.*

Results of the Tuberculin Tests

The results of the tests are considered by year of age in three different ways: first by sex, then as a whole and in comparison with other areas surveyed, and finally to compare two districts within our own survey area.

(a) Sex Variations in the Tuberculin-positive Rates by Year of Age

The sex variations are graphically represented in Fig. 2, and are set out in Table III. There is no significant difference between the percentage positive in the two sexes for all ages. Taking the ages individually it will be seen that the rates correspond very closely up to the age of 10. Thereafter the differences are in some cases greater, but only at two points do these differences approach significance—at 11 years $t=2.6$ and, again, at 14 years $t=2.6$ —but these differences are in opposite directions and we attach no importance to them.

Our results here correspond quite closely with the findings of the National Survey of the Medical Research Council (1952).

*This can be seen by comparing the total percentage positive in each year group in Fig. 4 with the percentages positive for Musselburgh in Table IV. In Fig. 4 the calculations are based on the inclusive figures, which include the 101 children who had had B.C.G. These children were excluded from the figures used for Table IV.

(b) Variations in Tuberculin-positive Rates by Year of Age in Musselburgh and Three Other Areas

In Musselburgh the ages of the 3,181 children tested varied from 5 to 15 years old. From 5 to 14 years the age groups are reasonably comparable so far as numbers are concerned, and only the 13-year group at 245 falls below the standard of "250 persons at each year of age" recommended by the M.R.C. (1952). The 15-year group contains only 98 children, and is relatively much smaller. This is explained by the fact that most children in Musselburgh leave school at the end of the term in which they reach their 15th birthday.

Of the 3,181 Musselburgh schoolchildren tested, 1,128 were tuberculin-positive and 2,053 tuberculin-negative. This 35.5% tuberculin-positive rate compares with 27.7% for the whole of England and Wales, 24.0% for the Rhondda Fach, and 39.0% for Calder Valley.

The Calder Valley results differ from ours and the other two in that children negative to the first test and failing to attend for the reading of the second test were counted as negative. If, as is done in the other surveys, these children are excluded so that the remaining population at risk can be related to the number definitely positive the overall tuberculin-positive rate for the Calder Valley recalculated from the published figure is 40.9%.

The results of the Musselburgh survey are set out in Table IV by age and the results of the other surveys put alongside for comparison. These are also illustrated in Fig. 3.

FIG. 3.—Tuberculin-positive rates of Musselburgh schoolchildren compared with those of other areas.

An examination of these figures and graphs shows that Musselburgh differs from the others in three respects. (1) The starting-point (26.3%) is higher than in any of the other areas. In the Calder Valley, which has the next highest starting-point (19.7%), the high initial figure was attributed to milk infection. In Musselburgh the milk is all "designated" milk* and we assume that we are dealing almost entirely with human tuberculosis. (2) The amplitude (26.3% to 50.0%) is smaller than in the other areas. (3) The rise with age occurs in stages in Musselburgh, whereas in the other areas the rise year by year tends to occur more smoothly.

In Musselburgh there would appear to be three quite distinct stages, 5 to 8, 9 to 11, and 12 to 15. Within each group there is no significant difference between the percentage positives from year to year (t is less than 1 in all

*Musselburgh is a "designated area." Most of the milk is "pasteurized," some is "tuberculin-tested," and a small amount is "certified."

TABLE IV.—Variations in Tuberculin-positive Rates by Year of Age in Musselburgh, England and Wales, Rhondda Fach, and Calder Valley

Age	No. Tested	Musselburgh		% Positive in Other Areas		
		No.	%	England and Wales (M.R.C.)	Calder Valley	Rhondda Fach
5	316	83	26.3	14.5	19.7	9.1
6	365	96	26.3	15.8	22.5	11.9
7	292	76	26.0	19.9	27.1	16.1
8	298	80	26.8	22.6	32.5	11.8
9	303	103	34.0	26.6	40.0	23.1
10	335	114	34.0	32.1	45.0	27.0
11	283	107	37.8	34.5	44.0	29.1
12	341	161	47.2	38.5	46.6	32.3
13	245	118	48.2	40.9	55.5	35.7
14	305	141	46.2	43.9	58.7	41.8
15	98	49	50.0	51.5	67.7	39.7
Total	3,181	1,128	35.5	27.7	39.0	24.0

TABLE V.—Tuberculin-positive Rates in Musselburgh Schoolchildren in Three Age Groups

Age Group	No. Tested	Tuberculin-positive			Value of t
		No.	%	S.E.	
5-8	1,271	335	26.36	± 1.24	—
9-11	921	324	35.18	± 1.57	4.41
12-15	989	469	47.42	± 1.61	5.48

cases), while between the groups the differences are well marked and are significant.

It may be worthy of comment that in the Rhondda Fach the results in the 5 to 8 group seem to form a consistent group, although in the later years the Rhondda Fach pattern conforms more to that of the other areas, where the percentage positive rate rises steadily from year to year.

The three age groups representing the rising stages in the tuberculin-positive rates correspond fairly nearly to the scholastic grouping into infant, primary, and secondary scholars (5 to 7, 8 to 11, and 12 to 15), only the one year, 8, being displaced into the younger age group. Table V sets out this grouping and gives the t values for the difference between the infant and primary and between the primary and secondary scholars.

(c) Variations in the Tuberculin-positive Rates by Year of Age in Two Districts Within the Surveyed Area

In an attempt to relate tuberculin-positive rates in schoolchildren to environment certain data relating to social conditions were obtained. These may be fully examined at a later date. It is, however, possible now to compare the results in two quite distinct districts of our survey area—namely, the mining villages of Wallyford and Whitecraig on the one hand and the town of Musselburgh itself on the other.

In Wallyford and Whitecraig 85% of the houses are of recent construction. They are local authority houses of three or more rooms, laid out according to modern housing standards, and having a bathroom and proper sanitary accommodation for each house.

Housing in Musselburgh is in sharp contrast to Wallyford and Whitecraig. Musselburgh Town Council has its new housing schemes, but most of the houses in Musselburgh are still old. Some fall below accepted housing standards; many houses are of one or two rooms, and there are tenements which have no baths and in which the sanitary accommodation is shared. In addition to the unsatisfactory nature of the actual houses, parts of the town are congested and the houses are cramped together. The two districts have a common milk supply.

Of the children tested 2,442 were from the town of Musselburgh and 739 from Wallyford and Whitecraig. Of the town children 37.7% ± 0.98 were tuberculin-positive, and of the village children 27.9% ± 1.65 . This is a significant difference ($t = 5.2$).

The results by year of age in the two areas separately are set out in Table VI.

TABLE VI.—Comparison of Tuberculin-positive Rates in the Town of Musselburgh with Those in the Neighbouring Villages—by Year of Age

Age	Town			Villages		
	No. Tested	Tub. Pos.		No. Tested	Tub. Pos.	
		No.	%		No.	%
5	248	70	28.2	68	13	19.1
6	298	81	27.2	67	15	22.4
7	221	62	28.1	71	14	19.4
8	226	68	30.1	72	12	16.7
9	219	81	37.0	84	22	26.2
10	258	94	36.4	77	20	26.0
11	226	91	40.3	57	16	28.1
12	254	128	50.4	87	33	37.9
13	190	91	47.9	55	27	49.1
14	218	113	51.8	87	28	32.2
15	84	43	51.2	14	6	42.9
Total	2,442	922	37.7	739	206	27.9

Relationship Between the Jelly Test and the Mantoux Test

The jelly test is simple to administer and was used as a screen before giving the 100 T.U. Mantoux test. The alternative would be to use a preliminary Mantoux test of 1 T.U. or 10 T.U. The advantage of the jelly test as the first test is that it is easier to secure the co-operation of both parents and children when no initial needle-prick is involved and where at most there will, for the complete test, be only one needle-prick.

Objections to the use of the jelly test have been made because its reliability was said to vary with the age of the child. It was thought that because younger children have clearer skins the test is easier to read in them than in older children who may have a tendency towards acne.

On the other hand, the test has sometimes been described as inconclusive in younger children because of a larger number of non-specific reactions. We feel that by reading the test on the fifth day this risk was reduced to a minimum.

Our experience with the test bears this out. Fig. 4 shows the percentage positive for each year of age divided into "jelly-positive" and "additional" positive discovered by the Mantoux 100 T.U. test. The parallelism between the two sets of readings is quite striking and shows no consistent variation with age.

Jelly-test Results in Musselburgh Compared with those in Wallyford and Whitecraig

In the M.R.C. survey of England and Wales the jelly test gave a higher proportion of the total positives in the rural children. This was attributed to repeated reinfection from milk.

In our survey area there is no difference between the milk supply of Musselburgh on the one hand and Wallyford and Whitecraig on the other, and there is no significant difference between the percentage of total positives detected by the jelly test in the two districts ($83.2\% \pm 1.2$ in Musselburgh and $79.8\% \pm 2.1$ in Wallyford and Whitecraig).

Our experience where there is no difference in the milk supplies and no difference in the proportion detected by jelly would seem to be a reasonable corollary to the M.R.C. findings.

Tuberculin Testing of School-children as a Case-finding Measure

Of the positive reactors in the schoolchildren 95.8% were x-rayed by the mobile mass radiography

unit visiting the schools. Six children were subsequently notified as having active pulmonary tuberculosis and three others remain under observation because of minimal radiological abnormalities. (Rate of confirmed cases 5.5 per 1,000.)

The contacts of the children with positive reactions were offered x-ray examination, and of those who came forward five were found to have abnormalities warranting notification. Six other cases have been placed under observation. Quite a number of other people availed themselves of the chance to be x-rayed while the units were in the district. Five other cases were notified from this group and six have been put on the observation list. Thus a total of 10 adult cases of tuberculosis were discovered among the contact group and the casual group, giving a rate of 2.5 cases per 1,000 x-rayed.

Discussion

As was hoped, the results in this survey provide an interesting comparison with recent surveys from England and Wales. It is fairly safe to make these comparisons because the tests used were similar. The accuracy and reliability of the tuberculin jelly test have recently been questioned, and we are well aware that it is by no means satisfactory in all respects. By adhering strictly to our criteria for reading a test as positive and by carrying out an intradermal test where any doubt existed, we feel that we have enhanced the validity of our results. Fig. 4 shows that the proportion at each age positive only to the intradermal test is constant at all ages, and this is additional evidence that our reading of the tests has been consistent. By reading the jelly test on the fifth day, we think that we have reduced the likelihood of false-positive readings, and our results are therefore at least as reliable as surveys in which this test was read at an earlier stage. It is now our view that the jelly test gives a sufficient number of doubtful readings to lead us to recommend that its use be avoided where the main purpose is scientific accuracy. On the other hand, for such purposes as the tuberculin-testing of young children where the acceptance rate might be adversely affected by the necessity for injection, we still feel that the jelly test has considerable advantages, especially when used by experienced observers. More recent experience suggests that a suitable compromise is available in the Heaf multipuncture test (Heaf, 1951).

Completeness and Lapses

It will be seen from Table I and Fig. 1 that a very high consent rate was obtained to the performance of the tests, and a very high proportion of the children completed them.

FIG. 4.—Musselburgh children. Percentage tuberculin-positive at each stage. The shaded area represents the percentage of children in that age group who were positive to the jelly test. The unshaded area represents the percentage negative to jelly test but positive to Mantoux test (1 mg. old tuberculin). The total percentage positive is given at top of each rectangle. The reasons given for excluding the 101 children who had had B.C.G. are not relevant to the subject matter of this chart. The percentages shown here are therefore calculated from the results of tests on all the children examined in each age group—a total for all age groups of 3,282.

This satisfactory response is ascribed to the harmonious co-operation of the public health staff and the hospital and clinic staff. In particular the availability of the facilities of the school health service gave us an instrument already geared for this type of work, and the cordial co-operation of the director of education, headmasters, schoolteachers, and school nurses did a great deal to secure the trust and co-operation of the parents. Other helpful influences were the support of the general practitioners, the town council, and local youth clubs. This survey demonstrates that practically complete acceptance of a public health or preventive measure can be carried out by the enthusiastic co-operation of all the interested authorities, when enlightened propaganda has paved the way. It is probable that this is one of the most important lessons to be drawn from the survey—that large surveys can be made acceptable to the general public by painstaking preparation and using only existing machinery and staff.

Comparison with Other Surveys

Several interesting points arise in the comparison of our results with other surveys. The average number positive at all ages (5 to 15) in Musselburgh was 35.5%, with no significant sex differences. The comparable figure for England and Wales was 27.7% (M.R.C., 1952).

The graphs giving the percentage of positives with increasing age show that in Musselburgh the graph starts at a singularly high level when compared with the National Tuberculin Survey, and yet it ends at the same level at age 15. Thus in Musselburgh 26.3% were positive at 5 years, and yet this only goes up to 50% at age 15 years, whereas in the Calder Valley the comparable figures are 19.7% and 67.7%. These figures suggest that children in the 5 to 8 age group in Musselburgh have been exposed in an unusual degree to tuberculous infection. Could this be a reflection on the post-war increase in respiratory tuberculosis in Scotland? It may be that the children who were tiny in the peak years 1945 to 1949 would be most affected by this phenomenon, since they were mainly the children of young adults on whom the brunt of the increase fell.

One interesting feature is the comparison between the positive rates at different ages in the areas we have designated urban and rural. There was a significantly lower level of positives at all ages in the rural population. We feel that milk supplies cannot be held responsible for this difference, because in both areas practically all milk comes from the same sources. It is conceivable that the main cause for this difference is to be found in the fact that almost all the families designated rural lived in relatively new houses. There is, however, no evidence that overcrowding was any less severe or less frequent in the rural families than in the urban, but there is no doubt that the building sites were much less overcrowded, giving the children more scope for playing-spaces. Also the newer houses were of a very much higher structural standard and much better from the point of view of sanitation, lighting, and ventilation. Likewise, none of the new buildings had common entries and none had shared sanitary facilities.

The fact that 50% of children of school-leaving age had negative reactions is support for the B.C.G. vaccination of this group, and it is satisfactory to note that such a scheme has since started.

Examination of Contacts of Tuberculin-Positive Schoolchildren as a Case-finding Measure

As regards the efficacy of this type of survey as a case-finding manœuvre, it is apparent from our figures that six cases of active tuberculosis were found among the school-children. This was a valuable diagnostic procedure. Most of these cases would, however, have been detected by the school-leavers' B.C.G. campaign now in action, since they nearly all occurred in the older children.

It is, however, equally apparent that the examination of home contacts of children with positive reactions was not a very useful way of finding cases, since only five notifica-

tions resulted. It is advisable to remember that the amount of work expended on detecting these five cases was very considerable. It is indeed a fact that an equal number of cases came to light through x-ray examination of the general public, who came to the units simply because they had heard they were in the district. In this way five notifiable cases were detected. While we cannot claim that these five cases were diagnosed as a direct result of our survey, yet our propaganda undoubtedly had an effect in bringing them to the x-ray unit.

Summary

In Musselburgh 3,282 children between the ages of 5 and 15 years were tested for sensitivity to tuberculin. This figure represented 93.5% of the total school population. Consent had been obtained for the testing of 98.2% of all the children.

Of the youngest group 26.3% were positive, and of the 15 years age group 50% were positive.

Six cases of active pulmonary tuberculosis were found in the schoolchildren and five cases among the home contacts of the children with positive reactions. Thus examination of contacts of these children with positive reactions did not seem to be a very good case-finding measure.

We are greatly indebted to Dr. John Riddell, Medical Officer of Health for the County of Midlothian, for his co-operation and advice at every stage of this survey and for his permission to publish the material here presented. The Secretary of State for Scotland, on the recommendation of the Advisory Committee for Medical Research, made us a grant which we gratefully acknowledge. The grant covered the modest costs of the survey that are not covered by the normal Health Services—this included the employment of one extra female clerk. For the office work we would particularly like to thank Mr. B. Murray, Tuberculosis Clerk for the Midlothian Health Department, whose untiring energy did much to keep the clerical work abreast of the field work. To the Director of Education and his staff, the Nursing Supervisor and her staff, to general practitioners and clergy, members of the Town Council, and many members of the general public who helped in various ways our thanks are also due.

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In the latest annual review of the Rockefeller Foundation's programme, Mr. DEAN RUSK, the president, has this to say about the Congressional investigation of tax-exempt foundations last August. "If the Congress determines that it wishes a special Committee to look into tax exemption problems, our view is that we have an obligation to co-operate by furnishing the information desired. Unfortunately, that is not the end of the matter; the validity of the investigative process is affected by the sense of responsibility with which it is used. Repetitious investigation imposes unnecessary burdens upon those under scrutiny and adds little, if anything, to the information of the Congress. Investigations which are basically accusatory in character may, in the absence of great care, exceed the proper role of legislative investigation and infringe the established rights and privileges of those being investigated. Charges loosely framed or unsupported by facts offer no ascertainable issues on which to make reply and yet may damage reputable citizens and institutions. If fact-finding is distorted by partisan considerations, innocent bystanders are injured in the fray. If the same individuals act in both accusatory and adjudicative roles, injustice is the almost inevitable result. That the Congress itself is concerned about investigative procedures is a hopeful sign that common sense and the traditional concepts of government by law will be sustained."