

COLLECTIVE INVESTIGATION

SURVEY OF ACCIDENTS IN AND AROUND THE HOME

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At a meeting of the Faculty Research Committee in December, 1958, it was agreed that the possibility of a survey into the incidence of home accidents in East Anglia should be explored. It was decided that the investigation should last a year and that in view of the fact that other workers had noted a seasonal difference in the occurrence of home accidents, general practitioners should be asked to complete a record card for the months of February, May, August and November.

A pilot survey revealed ambiguities in the drafting of a simple instruction card and it became necessary to produce a much more detailed document and this, together with the record card, is shown in Appendix A.

The full survey began in August, 1960 and was completed in May, 1961.

The cards and instructions were sent by courtesy of the clerks of executive councils to general practitioners in the following areas about a fortnight before the beginning of each of the months concerned: Isle of Ely, Norfolk, Norwich, Yarmouth, Peterborough, Huntingdonshire, East and West Suffolk, and Ipswich. General practitioners in the area of the Cambridgeshire Executive Council were not asked to participate as they were being approached by the British Medical Association in connection with their Home Accidents Survey. The distribution included approximately 650 doctors; a few wrote to say that they were not interested; a number were excluded automatically by the type of practice in which they were working. Of the remainder, replies were received from 154 practitioners but only 43 completed the full series.

Results

The results of the survey have been analysed in two ways. Firstly (Section A), an analysis has been made of all the accidents recorded on the cards, i.e. the results of 386 cards out of a total of nearly 2,600 cards sent out. These analyses bear no relation to any population. Secondly (Section B), the 43 complete series representing 172

COLLEGE OF GENERAL PRACTITIONERS—EAST ANGLIA FACULTY
HOME ACCIDENTS INVESTIGATION

Dr. For month of Type of Practice { Rural
Address No. of patients on your list. { Semi-rural
Urban

..... Please place a '1' in appropriate square for each 'Home Accident' attended

Type of accident	Males					Females				
	Under 5	5-14	15-44	45-64	65+	Under 5	5-14	15-44	45-64	65+
Falls										
Poisoning										
Drugs										
Other										
Burns										
Scalds										
Cuts										
Foreign bodies										
Others—specify by special note										

SPECIAL NOTES:

cards have been analysed both as regards type of accident, age, and sex distribution, and related to the estimated population at risk.

Section A

Examination of the cards has revealed that it is not possible to make a breakdown between urban, semi-rural, and rural areas. In a number of instances where the four cards were returned, some practitioners had described the practice differently as between one card and another. Therefore no attempt has been made either in this section or in the second section to relate any of the accidents to the type of practice.

The results of the analysis of the 386 cards are to be found in table I. From this table, the following points emerge:

(a) Of a total of 2,521 recorded accidents, the following is a summary of the type of accident:

- 915 falls
- 25 poisoning with drugs
- 19 poisoning with other agents
- 210 burns
- 211 scalds
- 724 cuts
- 197 foreign bodies
- 220 other accidents

(b) Of the total of 2,521 accidents, 1,270 occurred in males, 1,251 in females.

(c) There was a noticeable fall off in the numbers in males over 45 years.

(d) There was little of apparent significance in the figures as between the four selected months.

(e) In males, the greatest number of accidents was in the 5 to 14 age group, in females, in the 15 to 44 age group.

(f) There were two and a half times as many accidents to women over 65 as to men in the same group and twice as many in the over 45 age range.

With regard to type of accident, the following points are noted:

(g) Falls were sustained by 59 males over 65 as compared with 214 females.

(h) Poisoning figures, though small as part of the total accident figures are interesting in that 19 of the total of 44 occurred in the under fives.

(i) Burns showed no significant scatter but there were more in the under 45 age group with 100 males affected as against 110 females in the total figure.

(j) Cuts affected 455 males and 269 females with a marked pre-

TABLE II—contd. ANALYSIS OF 172 RECORD CARDS (43 COMPLETE SERIES) BY MONTH, SEX, AGE AND TYPE OF ACCIDENT

February	12	10	8	9	6	45	8	8	16	23	67	112
Falls	2	—	—	1	—	3	—	—	—	—	—	3
Poisoning (drugs)	—	6	1	2	2	19	5	2	3	2	16	—
" (other)	4	1	3	—	2	10	2	2	3	2	14	35
Burns	12	11	18	11	—	52	7	—	4	3	28	24
Scalds	—	1	11	3	2	17	3	1	1	3	9	80
Cuts	3	3	4	3	1	14	1	1	5	2	16	26
Foreign bodies	—	—	—	—	—	—	—	—	—	—	—	—
Others	—	—	—	—	—	—	—	—	—	—	—	30
Total	41	32	45	29	13	160	26	14	45	33	150	310
May	14	10	9	2	13	48	13	15	10	34	89	137
Falls	—	—	—	—	—	—	—	—	2	—	3	3
Poisoning (drugs)	2	1	5	1	2	11	1	—	—	—	1	1
" (other)	3	1	1	1	—	6	3	1	6	1	13	24
Burns	17	22	18	10	5	72	12	10	5	3	15	21
Scalds	5	1	2	5	—	13	2	2	9	7	47	119
Cuts	1	5	4	2	1	13	3	4	2	—	8	21
Foreign bodies	—	—	—	—	—	—	—	—	5	—	15	—
Others	—	—	—	—	—	—	—	—	—	—	—	28
Total	42	40	39	21	21	163	36	32	39	45	191	354
TOTAL ACCIDENTS	162	189	177	90	62	680	113	99	189	139	668	1348

Falls 490; poisoning (drugs) 11; poisoning (other) 1; burns 111; scalds 104; cuts 387; foreign bodies 101; others 143

TABLE III
ANALYSIS OF ACCIDENTS RECORDED AS OCCURRING OUTSIDE HOUSE BY MONTH, SEX, AGE AND TYPE OF ACCIDENT

	Male						Female						Grand Total
	Under 5	5-14	15-44	45-64	Over 65	Total	Under 5	5-14	15-44	45-64	Over 65	Total	
August													
Falls	7	7	3	—	1	18	1	7	2	1	2	13	31
Poisoning (drugs)	—	—	—	—	—	—	—	—	—	—	—	—	—
" (other)	—	—	—	—	—	—	—	—	—	—	—	—	—
Burns	—	—	—	—	—	—	—	—	1	—	—	1	1
Scalds	—	—	1	—	—	1	—	—	—	—	—	1	1
Cuts	6	19	4	—	2	31	3	5	2	1	3	14	45
Foreign bodies	—	6	—	—	2	8	—	—	—	—	—	—	8
Others	2	—	4	2	—	8	1	2	2	—	—	5	13
Total	15	32	12	2	5	66	5	14	7	2	5	33	99
November													
Falls	1	2	—	—	—	3	—	1	2	1	2	6	9
Poisoning (drugs)	—	—	—	—	—	—	—	—	—	—	—	—	—
" (other)	—	—	—	—	—	—	—	—	—	—	—	—	—
Burns	—	—	—	—	—	—	—	—	—	—	—	—	—
Scalds	—	—	—	—	—	—	—	—	—	—	—	—	—
Cuts	—	—	—	—	—	—	—	—	—	—	—	—	—
Foreign bodies	1	—	3	2	1	7	—	—	3	1	—	4	11
Others	—	—	1	—	—	1	1	—	3	—	—	4	4
Total	2	3	4	2	1	12	1	1	8	2	2	14	26

TABLE IV
 AGGREGATE OF ACCIDENTS OCCURRING IN FOUR SURVEY MONTHS BY AGE, SEX AND TYPE OF ACCIDENT

	Male					Female					Grand Total		
	Under 5	5-14	15-44	45-64	Over 65	Total	Under 5	5-14	15-44	45-64		Over 65	Total
	Falls	47	49	43	22	36	197	39	44	46		62	102
Poisoning (drugs)	4	—	—	1	—	5	1	—	3	2	—	6	
" (other)	—	—	—	—	—	—	1	—	—	—	—	1	
Burns	18	10	10	6	5	49	17	6	24	9	6	62	
Scalds	23	8	9	2	2	44	10	9	17	13	11	60	
Cuts	47	87	62	34	13	243	30	23	53	22	16	144	
Foreign bodies	11	6	30	12	4	63	8	8	15	6	1	38	
Others	12	29	23	13	2	79	7	9	31	14	3	64	
Total	162	189	177	90	62	680	113	99	189	128	139	668	

ponderance to the under 45s in each sex.

(k) Scalds affected 134 females as against 77 males.

(l) Foreign bodies affected 136 males as against 61 females. Half the males affected were in the 15 to 44 age group.

Section B

There were 43 complete series comprising 172 cards on which were recorded 1,348 accidents (680 males and 668 females) occurring in a population of 139,740 persons. Since, in the four months, the numbers in the practices were not always exactly the same, the number in the practice has been averaged in each case and these averages have been totalled to obtain the population.

The results of the analysis of the 43 complete series are shown in tables II to V from which the following points of interest are extracted:

(a) Of the total accidents (1,348), 680 were in males, 668 in females.

(b) The following is a summary of the recorded accidents:

- 490 falls
 - 11 poisoning with drugs
 - 1 poisoning with other agent
- 111 burns
- 104 scalds
- 387 cuts
- 101 foreign bodies
- 143 other accidents

(c) Falls occurred in 36 males over 65 and 102 in females over 65, the latter being 34.8 per cent of the total falls in females. Falls constituted 36.4 per cent of the total number of accidents.

(d) Of the 12 cases of poisoning, 6 were in under fives.

(e) Burns affected 49 males and 62 females, both noticeably in the under 45 age group.

(f) Scalds affected 60 females and 44 males.

(g) Cuts were sustained by 243 males (of whom over half were under 15) and by 144 females. Cuts constituted 28.8 per cent of the total number of accidents.

(h) Foreign bodies affected 63 males, 38 females.

The pattern of incidence observed in Section A is followed in that the fall off of accidents to males over 45 does not occur in females, there was nothing of apparent significance as between each of the four survey months, and the greatest numbers of accidents were recorded in the 5 to 14 male age group and the 15 to 44 female age group.

It had been hoped to obtain some information about the situation of the occurrence of the accident, but, either because the use of the cyphers suggested was not always complied with or because there

still remained some ambiguity, it has become apparent that deductions along these lines are not possible under the present survey. It is noted, however, in passing that of the 1,348 accidents recorded, 169 were noted as having taken place within the curtilage of the building and 44 in the street immediately outside. 15.8 per cent of the total accidents are recorded as having taken place outside the house.

Discussion

Taking the total number of accidents as related to the total population it is seen that the attack rate is 9.6 per thousand. Relating the number of accidents occurring in each of the survey months to the total population at risk, the following are the rates per thousand per month:

August	2.7 per 1,000
November	2.2 per 1,000
February	2.2 per 1,000
May	2.5 per 1,000

If a figure of 2.5 per thousand per month is accepted as an average rate, then it follows that approximately three per cent of the population may be the subject of a home accident requiring medical attention annually. If this figure is applied to the population of England and Wales, the resulting approximation of more than one and a half million accidents is in the order of other estimates of the total annual morbidity from this preventable cause.

When the total number of accidents is broken down into age groups (table V) it is seen that the 15 to 44 age group appears to suffer the greatest number of accidents but it must be pointed out that the 275 accidents occurring in children under 5 occur over a period of five years whereas in the 15 to 44 age group, the 366 accidents occur over a period of thirty years. Table VI shows the estimated accident rates by age and sex from which it is apparent that the under fives experience the heaviest rates.

From the point of view of response in relation to the effort involved in preparation and organization, this survey is disappointing and probably indicates that in a large group of general practitioners only a few will be interested in any particular project. It seems to follow that to be certain of obtaining information of the nature involved in this survey, the concentrated "blitz" technique is preferable to the "blunderbuss" one employed in the present instance.

Acknowledgment

My gratitude is warmly extended to all those general practitioners who participated and especially to the gallant 43 and to the clerks of the executive

TABLE V
AGGREGATE OF ACCIDENTS OCCURRING IN FOUR SURVEY MONTHS BY AGE AND TYPE OF ACCIDENT

	<i>Under 5</i>	5-14	15-44	45-64	<i>Over 65</i>	<i>Total</i>
Falls	86	93	89	84	138	490
Poisoning (drugs)	5	—	3	3	—	11
” (other)	1	—	—	—	—	1
Burns	35	16	34	15	11	111
Scalds	33	17	26	15	13	104
Cuts	77	110	115	56	29	387
Foreign bodies	19	14	45	18	5	101
Others	19	38	54	27	5	143
Total	275	288	366	218	201	1348

TABLE VI
THE ESTIMATED ACCIDENT RATES BY AGE AND SEX

<i>Age</i>	<i>Males</i>	<i>Females</i>	<i>Both Sexes</i>
Under 5	8.3	6.1	7.2
5-14	5.2	2.9	4.1
15-44	1.9	2.1	2.0
45-64	1.6	2.2	1.9
Over 65	2.3	3.9	3.4
All ages	3.0	2.8	2.9

councils who acted as such courteous postmen and liaison officers. I am particularly grateful to Dr J. Hislop, lately assistant director of research and Mr R. Carpenter, assistant director of research of the Department of Human Ecology, Cambridge University, for the considerable help and advice they have given me in the planning of the survey.

(Any doctor wishing for more detailed tables may apply to the author.)

APPENDIX A

HOME ACCIDENT INVESTIGATION

Notes for those taking part

1. OBJECT OF THE SURVEY: TO DETERMINE THE NUMBER OF ACCIDENTS OCCURRING IN OR AROUND THE HOME REQUIRING MEDICAL TREATMENT BY A DOCTOR, OR AT HOSPITAL OR CLINIC.

2. METHOD

The object of the survey is to determine the number of home accidents as defined below, occurring in a given population. For this purpose the word "population" is taken to mean the number of patients in a medical practice but excluding temporary residents. In the case of a single handed practice it is the total number of patients on the practitioner's list. In the case of partnership practices or group practices it is the total number of patients on the combined list of all the members of the partnership or group practice. Thus, it would

Come about that, providing all the members of a partnership or group practice are taking part in the investigation, it would be immaterial which particular practitioner recorded an accident and whether the patients were on his list or on that of one of his partners providing always that an accident is only recorded once.

In the case of a partnership, or group practice, each member may keep his own record card of accidents, and enter on it the number of patients on his own list. The numbers shown on each card will then be added together to form a composite list.

If in a group practice or partnership all the cards of the patients cared for are held in such a way that it is not possible to say how many are on the list of any particular member of the practice then, unless all members of the practice are prepared to take part in the investigation, it will not be possible for an individual in the practice to be a participant.

3. DEFINITIONS

(a) "*Accident*". An injury sustained by an individual following some unexpected, unforeseen and unintentional event.

(b) "*Home*". A dwelling house and its curtilage, and buildings within the curtilage, e.g. lavatory, wash-house, coal-shed, cycle-shed, greenhouse.

(c) "*Curtilage*". The area attached to a dwelling house. This means the area of land within the boundaries of the property. In the case of a detached, semi-detached or terrace house the curtilage includes a back yard or court, a back garden, side gardens, front garden. In the case of flats it includes the above as appertaining to the property as a whole.

(d) "*In and Around the Home*". Within the dwelling house, on the curtilage, on the street adjoining the curtilage. (*Road Accidents* are excluded from the enquiry.)

(e) "*Individual in the Home*". Your patients are to be regarded as in home surroundings if they are in their own homes, or if they are visiting or staying with friends in their houses or are out working as daily helps. A patient who is a lodger is to be regarded as at home in his lodging. Your patients when they are staying away temporarily from your district are excluded.

Industrial accidents, i.e. accidents happening to tradesmen, are excluded, e.g. the plumber burning himself with a blow lamp or the painter falling off his ladder. But the housewife falling off a step ladder when cleaning the walls and paint-work is included, as is the case of the householder burning himself with his own blow lamp while engaged in a "do it yourself" job.

Where a dwelling house forms part of business or industrial premises it is necessary to distinguish between domestic accidents, i.e. accidents related to the home, and those related to the business or industry. For example, a woman preparing a meal in her kitchen drops a box of potatoes on to her foot—this is a home accident. The adjoining room, however, has been converted into a fruiterer's shop, which is run by the same woman. If she drops a box of potatoes on to her foot in this room, this is not a home accident. In rural areas such a distinction would apply to accidents occurring in the home and those relating to accidents in connection with the business of farming where the dwelling house is on the farm land, or the village shop type of premises.

(f) "*Street*". A child playing in the street outside the house may cut itself on a piece of glass, or push a small pebble up its nose. A grown up person may slip on ice or banana skin in the street immediately outside the house. These examples would be recorded as occurring "in and around the home". But to be knocked down by a motor car or bicycle would not be a home accident.

4. WHAT ACCIDENTS SHOULD BE RECORDED

(a) All accidents within the definition given above as occurring "in and around the home". These may be attended anywhere by the practitioner, e.g. in his surgery, at his house, or in the patient's home or environs, or in any other house or situation where the accident occurs, or where the patient may be.

(b) All accidents in the home which went to hospital before being seen by the practitioner, but which to his knowledge have occurred.

Note: Always providing in (a) and (b) above that the patient is on the practi-

tioner's list and is not a temporary resident.

It must be emphasized that the object of the survey is not to ascertain how many accidents any given practitioner attends, but how many accidents occur to patients in his own practice if he be single-handed, or in the combined practice of himself and his partners if he be in partnership or group practice. Should he attend a home accident on behalf of a colleague who is in no way connected with his practice, i.e. not one of his partners, he will not record the accident as it does not come within the definition of his "population". It will be left to the colleague to record the accident should he be taking part in the survey, otherwise the accident should be left unrecorded.

No record is required of the degree of seriousness of the accident.

5. RECORDING

The ultimate result of a survey of this kind may be the reduction of accidents by taking certain steps towards removing the causes, for instance the Fire Guard Act, and the urgent enquiry recently into the safety of oil heaters, inflammable clothes and toys.

It seems therefore, that it might be useful to differentiate between accidents

(a) in the house itself;

(b) in the curtilage;

(c) in the immediate neighbourhood of the curtilage, e.g. in the street just outside the curtilage, or the back lane.

This differentiation could be achieved by the use of three simple symbols:

/ (a stroke) = in the house

⌘ (a stroke and c) = on the curtilage

‡ (a stroke and s) = adjoining the curtilage, e.g. in the street.

6. FINALLY

If you are in any doubt as to whether a particular case should be recorded please make a note indicating the circumstances in which the accident in question occurred so that we may decide whether or not it should be recorded.

Controlled Trials in the Prophylactic Value of Progesterone in the Treatment of Pre-eclamptic Toxaemia. KATHARINE DALTON, M.R.C.S., L.R.C.P., *J. Obstet. Gynaec. Brit. Com.* (1962), 69, 463.

Dr Dalton is a general practitioner who holds a post as clinical assistant in the department of psychological medicine, University College Hospital, London. In a controlled trial it was discovered that progesterone administration from mid-pregnancy onwards reduced the incidence of toxaemia of pregnancy, and it was shown to be of value to question the patients at every antenatal attendance as to their state of well-being compared with their non-pregnant state: all patients "below par" should be thoroughly investigated, especially during the middle trimester.