organs and regions of the body. The possibility of a variation of the main incidence of cancer in conformity with changes in certain customs must also be admitted.

That irritation is really an important causative factor of cancer is an assumption which is justifiable only for certain forms of cancer occurring in particular regions. The knowledge of the irritants to which different species of animals and the individual tissues of the same animal are susceptible is of very considerable importance. The acquisition of this knowledge will doubtless require extensive study, and it is advisable to approach this study in man statistically.

In view of these considerations, and also because of the results of experiment, it appears advisable to have data of the incidence of cancer in persons pursuing different occupations. This matter was discussed with Dr. Tatham in 1903–4, and again discussed with Dr. Stevenson, of the General Register Office, who has been so good as to explain to the statistical subcommittee that the new arrangements made by the Registrar-General for tabulating deaths would permit of this information being abstracted. For the purposes of comparison it will be necessary to learn not only the incidence of cancer on particular sites liable to irritation, but also the incidence of cancer on all other sites, as well as the incidence of the other causes of death in the occupations considered. This information will be embodied in the next decennial supplement to the reports of the Registrar-General.

Of other statistical matters, reference may be made to the fact that over four thousand cases of cancer have now been collected from India. The figures confirm the conclusions already stated. Of interest has been a large series of cancer cases of which reports and specimens have been sent from Khartoum by Mr. Christopherson, the cases occurring in Arabs and in the Natives of the Sudan and Bahr-el Ghazel, remote from the influences of European civilization. Dr. Preston Maxwell has drawn attention to a peculiarity in the incidence of cancer in China, where the men are very liable to cancer of the œsophagus, whereas in Chinese women the disease is rare or unknown. In China Dr. Preston Maxwell suggests that the difference is due to the men bolting their rice whilst it is very hot—the men being served first, and the women afterwards when the rice has become cooler. Enough has been said to show that the statistical inquiries continue to add, each in its own way, to our knowledge of cancer either by revealing new facts or by giving, if not yet a true, still, a more precise significance to old ones. Another form of inquiry, which has been both statistical and experimental, has thrown light upon the long-debated question of heredity.

Heredity.

The breeding experiments which have been in progress for many years have been alluded to in several earlier reports. They have now yielded upwards of two thousand mice of known ancestry and age. Five hundred and sixty-two females were available for a study of the influence of heredity on the development of cancer of the mamma when an analysis was made on the 24th October, 1910. The figures are arranged in the accompanying tables so as to bring out the ages of the mice, and the proportions which developed cancer of the breast in the two groups into which they have been segregated according to ancestry. All due precautions have been taken to avoid errors in the interpretation of the figures. The data show that heredity plays a part in the development of cancer of the breast in mice. At all age-periods the disease is more frequent when the mother, or either grandmother, or all three, had died from cancer of this organ.

TABLE I (24th October, 1910). Female Mice of Recent Cancerous Ancestry. (Mother, one or both Grandmothers, or all Three Cancerous.)

Age (months)	0–3	–6	–9	–12	–15	–18	–21	–24	Over 24	Total.
No tumour—										
Living	..	..	9	7	6	8	7	4	6	47
Dead	..	..	49	48	39	28	22	20	18	224
Tumour mice—										
Organs other than mamma	..	..	..	1	2	2	1	..		7
Mamma	..	..	4	7	15	18	10	5	31	62
Totals	..	..	62	63	62	56	40	29	28	340
Per cent.	..	..	6·5	11·1	24·2	32·1	25·0	17·2	10·2	18·2

TABLE II (24th October, 1910). Female Mice of Remote Cancerous Ancestry. (No Cancer in Mother or Grandmothers.)

Age (months)	0–3	–6	–9	–12	–15	–18	–21	–24	Over 24	Total.
No tumour—										
Living	..	..	7	..	1	2	9	5	15	39
Dead	..	..	30	37	24	28	19	17	6	161
Tumour mice—										
Organs other than mamma	..	..	..	..	..	..	1	1	2	4
Mamma	..	..	1	4	1	8	..	3	2	19
Totals	..	..	38	41	26	38	29	26	25	223
Per cent.	..	..	2·6	9·8	3·8	21·6	0·0	11·5	8·0	8·6