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Centre for Agricultural Strategy



Smallfarmers' Association

Strategies for family-worked farms in the UK

Edited by R B Tranter

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20 Mortality in the farming population of England and Wales: do own-account farmers and their families have advantages?

J L Jollans

MORTALITY RATES

In comparing death rates between sections of the community, the Office of Population Censuses and Surveys (OPCS) divides the population in various ways. One of these is by Socio-Economic Group (SEG) and the farming community forms three such groups:

- SEG 13 — Farmers — Employers and Managers: Persons who own, rent or manage farms, market gardens or forests, employing people other than family workers in the work of the enterprise.
- SEG 14 — Farmers — Own Account: Persons who own or rent farms, market gardens or forests and having no employees other than family workers.
- SEG 15 — Agricultural Workers: Employees engaged in tending crops, animals, game or forests, or operating agricultural or forest machinery.

Death rates are compared by Standardised Mortality Ratios (SMR's),

$$\text{where } \text{SMR} = \frac{\text{Number of observed deaths}}{\text{Number of expected deaths}} \times 100.$$

The number of expected deaths is calculated from the death rate for the same national sex/age/cause of death group, adjusted to have the same numbers of people of each age as the group being observed. The national average SMR is always 100; a higher or lower figure indicates a higher or lower rate of mortality.

Table 1 gives the SMR's, for death from all causes, in most of the SEG's for men, wives, single women, boys and girls. The data indicate that employer

Table 1

Summary of annual mortality by socio-economic group, England and Wales, 1970-72

Socio-economic group	Standard mortality ratios					Deaths per 1000 live births	
	Men 15-64	Wives 15-64	Single Women 15-64	Boys 1-14 yrs	Girls 1-14 yrs	Boys <1yr	Girls <1yr
1.1 & 2.1 Employers	102	106	80	66	72	14	12
1.2 & 2.2 Managers	80	84	75	83	83	16	12
3 Professional workers, self employed	100	70	324	52	67	10	6
4 Professional workers, employees	79	86	79	79	94	14	10
5.1 Ancillary workers & artists	75	83	80	70	79	14	12
5.2 Foremen & supervisors; non-manual	67	68	64	74	61	16	14
6 Junior non-manual workers	106	97	88	99	99	18	12
7 Personal service workers	134	126	128	96	105	26	16
8 Foremen & supervisors, manual	79	88	82	60	60	17	12
9 Skilled manual workers	113	123	116	110	105	20	16
10 Semi-skilled manual workers	115	124	118	119	129	22	17
11 Unskilled manual workers	139	137	138	174	164	35	27
12 Own account workers (other than professional)	77	74	66	40	42	15	10
13 Farmers - employers and managers	99	122	92	150	195	19	15
14 Farmers - own account	61	63	66	47	42	9	8
15 Agricultural workers	103	121	99	138	118	20	17
16 Members of armed forces	147	151	112	124	110	21	15
17 Inadequately described occupations	86	32	219	231	228	39	34
All	100	100	100	100	100	20	15

Source: Calculated and adapted from OPCS (1978) text and microfiches.

farmers and their employees have average death ratios but their families are not so fortunate. By comparison, the own-account farmers and their families have markedly low death ratios. It is interesting to compare these with the ratios for other own-account workers – the small businessmen and shop-keepers who have no employees other than family.

Table 2 shows the most important causes of death in the agricultural and national populations. The young are relatively prone to death by accident, the middle-aged by cancer and the older ones by diseases of the circulatory system, such as heart attacks and strokes. However, the agricultural population as a whole are more prone to accidents than the national population.

Table 3 gives the SMR's for groups of causes of death within the three SEG's comprising the agricultural population. Clearly, the own-account farmers and their families have low ratios for most causes of death including accidents and, within the accident classification, including suicide.

All data of this type carry qualifications but the OPCS is reasonably confident that the broad impression conveyed is trustworthy.

DISCUSSION

The reasons for the low mortality ratios amongst own-account farmers and their families are obscure but the advantages seem sufficiently large to justify deeper investigation. Two possibilities are:

(i) The MAFF June census (MAFF, annual) shows that own-account farmers tend to be concentrated towards the West and North of the country and may therefore be more associated with livestock than crop farming systems.

Against this is the tendency for the general population to have low death ratios in East Anglia and high ones in the North, North-West and Wales.

(ii) Own-account farmers, particularly those tied to livestock routines, may work through many illnesses rather than lose time visiting their doctors. In consequence they may not take so many medicines during their lives.

All medicines should be considered as substances foreign to the body and a proportion are used to destroy pathogenic life. It is suggested by some in the medical profession that the cumulative effects of these medicines may serve to shorten human life.

There may well be other reasons which would be revealed by a more detailed study of the relationships between farming systems, lifestyles and causes of death. If, indeed, the own-account farmers and their families do have health advantages then it is also pertinent to ask whether others should be offered the opportunity to share them. For the time being it would be prudent to research in greater depth.

Table 2

The four main causes of mortality in men and women aged 15-74, England and Wales, 1970-72

Cause of death	Population	Proportion of total deaths in each age group (%)							
		15-24	25-34	35-44	45-54	55-64	65-74	15-74	
Malignant neoplasms	Agricultural	6	22	33	37	31	22	26	
	National	12	21	30	33	32	25	28	
Diseases of circulatory system	Agricultural	2	16	21	36	46	55	49	
	National	6	16	34	43	46	52	47	
Diseases of respiratory system	Agricultural	2	4	5	7	10	13	11	
	National	6	7	7	8	11	14	12	
Accidents, poisonings, violence	Agricultural	74	44	22	9	4	2	5	
	National	58	37	15	6	3	2	5	
Total percentage	Agricultural	84	85	81	89	91	92	91	
	National	82	81	86	90	92	93	92	

Source: Calculated from OPCS (1978).

Table 3

Standardised mortality ratios for main causes of mortality, England and Wales, 1970-72, Men and Wives aged 15-64

Cause of death	SEG 13		SEG 14		SEG 15	
	Farmers - Employers and Managers		Farmers - Own Account		Agricultural Workers	
	Men	Wives	Men	Wives	Men	Wives
Cancers	94	130	60	63	104	108
Endocrine, nutritional, metabolic	145	173	97	21	91	174
Diseases of nervous system	84	179	84	62	115	132
Diseases of circulatory system	95	115	61	67	85	134
Diseases of respiratory system	68	72	63	46	122	140
Diseases of digestive system	108	99	58	49	98	133
Diseases of genito-urinary system	151	72	105	52	133	122
Accidents, poisonings, violence	196	167	47	46	163	87
(Suicide	242	152	73	37	190	88)
All causes	99	122	61	63	103	121

Source: OPCS (1978).

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- MAFF (annual) *Agricultural returns — England and Wales, Regions and Counties — Final results of the June Census*. Guildford: MAFF.
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