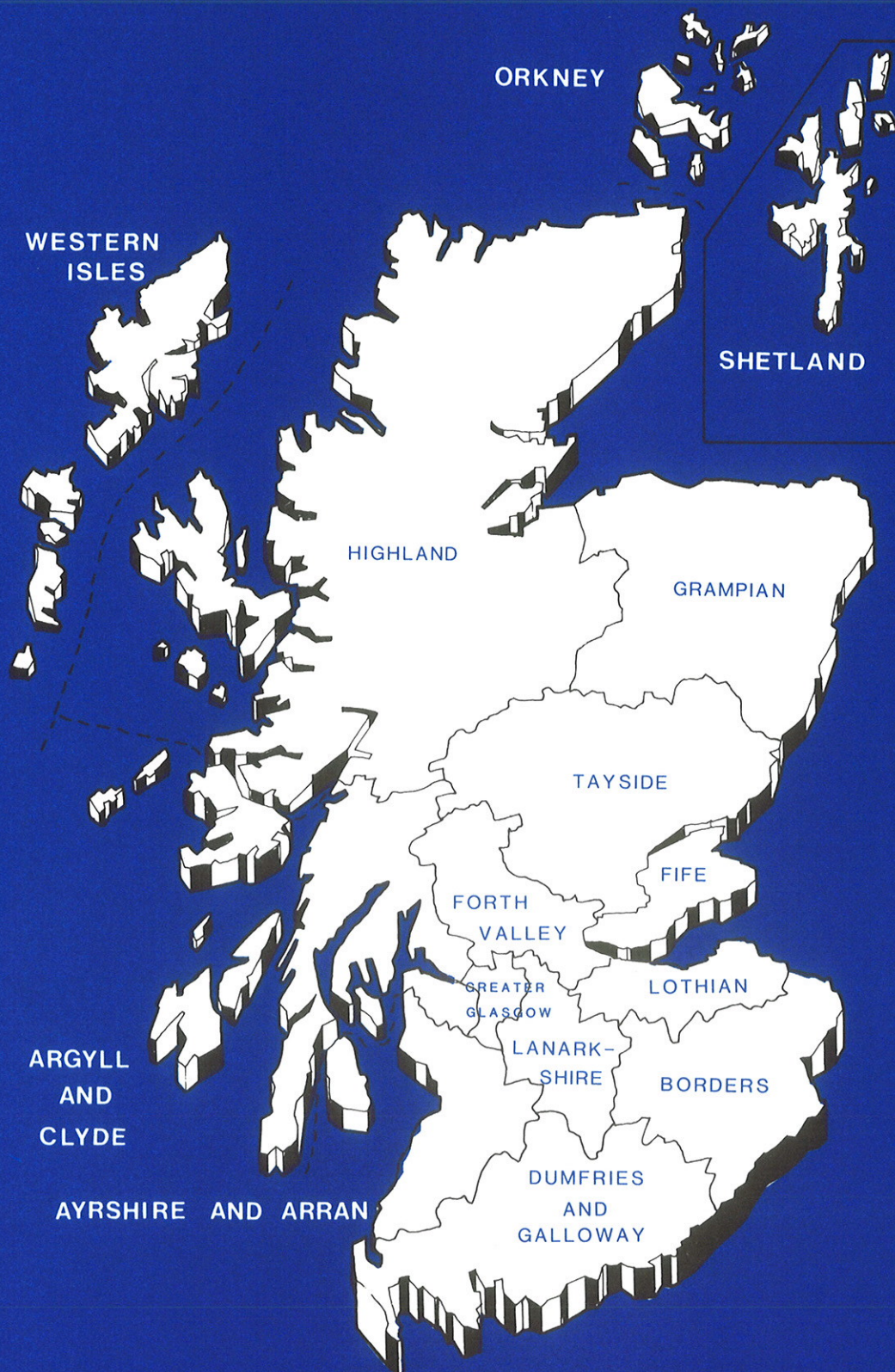


SCOTTISH HEALTH BOARDS' DENTAL EPIDEMIOLOGICAL PROGRAMME



1987/88 REPORT

Prepared by
Dental Health Services Research Unit
University of Dundee

Scottish Health Boards' Dental Epidemiological Programme

Report of the 1987 / 1988 Survey of 5 Year Old Children

Prepared by

N B Pitts and J A Davies

**Dental Health Services Research Unit
University of Dundee**

Published by

University of Dundee
Dental Health Services Research Unit

ISBN 1 899809 00 7

1988

SCOTTISH HEALTH BOARDS' DENTAL EPIDEMIOLOGICAL PROGRAMME

SUMMARY REPORT OF THE 1987/8

SURVEY OF FIVE YEAR OLD CHILDREN

Prepared by
N.B. Pitts and J.A. Davies
of the
Dental Health Services Research Unit
University of Dundee

Overview:

The Scottish Health Boards' Dental Epidemiological Programme is a new venture initiated by the Scottish Committee of Chief Administrative Dental Officers (CADOs) in conjunction with the Dental Health Services Research Unit of the University of Dundee. The programme commenced in autumn 1987 with central training and calibration exercises for all the examiners and scribes. Each of the 15 Health Boards then surveyed a sample of at least 5% of first year Primary School children.

The overall results for Scotland show a substantial improvement since the last survey of a National Scottish sample of 5 year olds, which was undertaken in 1983 by the Office of Population Censuses and Surveys. The 1987 weighted mean for decayed and filled teeth (dft) is 2.2 which represents a 31% improvement over the 1983 dft of 3.2. A marked improvement is also evident in terms of the proportion of the children who can be said to be "caries free" (at the cavitation level). When assessed by "zero caries" (dft=0), the 1987 value of 43.8% represents a dramatic improvement compared to the 1983 figures of 24%. It must, however, be remembered that this still means that by the age of 5 years over half of the children (56%) had already experienced dental decay.

There was a wide range of results between the 15 different Health Boards, with children in the Health Boards of the heavily urbanised central belt and in the Island Health Boards generally showing a poorer state of dental health than the more rural areas. In spite of the improvement seen since 1983, the Scottish results for 1987 do not compare favourably with the 1985/6 results for 5 year olds in England and Wales compiled by the British Association for the Study of Community Dentistry from 14 'Regions' (these recorded a mean dmft of 1.82 compared to this survey's mean Scottish dmft of 2.73).

The Programme is continuing with a survey of 12-year-old children in 1988. It is hoped that this initiative will provide valuable information for the planning of the dental health services of the future, so that they can appropriately meet the needs of Scotland.

Participating Health Boards:-

Argyll and Clyde	Greater Glasgow
Ayrshire and Arran	Highland
Borders	Lanarkshire
Dumfries and Galloway	Lothian
Fife	Orkney
Forth Valley	Shetland
Grampian	Tayside
	Western Isles

Co-ordinating Committee - Dental Epidemiology, Scotland.

Mr. T.R. Watkins*	(Co-ordinator)
Dr. N.B. Pitts*	(Calibration and Results Co-ordinator)
Mr. M.C.W. Merrett	(Calibration Course Organiser)
Mr. R. McKechnie	(Representative of Specialists in Community Dental Health)
Professor K.W. Stephen	(Adviser)

* British Association for the Study of Community Dentistry (BASCD) Regional Co-ordinators for BASCD caries prevalence studies in Scotland.

1. Introduction

In the past it has not been possible to obtain reliable and comparable epidemiological survey results describing the dental health of truly representative groups from across the length and breadth of Scotland. In some areas independently commissioned surveys or toothpaste trials have resulted in a wealth of highly specialised data, but in other areas there is simply no comparable information.

Although Scotland's dental health problems have been shown to be more serious than those in most other parts of the United Kingdom we know that, in general, the situation is now improving (Todd, Walker and Dodd, 1983; Todd and Dodd 1985; Todd, *in press*). These improvements are, however, not necessarily occurring in an 'even' way across the country and are being superimposed upon an already very heterogeneous picture of dental disease.

If the dental health services of the future are to be planned so that they can appropriately meet the needs of Scotland, and if the success of the services are to be monitored, it is imperative that accurate information about the level of dental health is collected by a series of standardised and coordinated National Scottish epidemiological surveys.

In order to meet this need a new venture, the Scottish Health Boards' Dental Epidemiological Programme, has been initiated by the Scottish Committee of Chief Administrative Dental Officers (CADOs) in conjunction with the Dental Health Services Research Unit of the University of Dundee. This programme of annual surveys of dental health, to be conducted on randomly selected groups in all Health Board areas, will produce a regularly updated profile of children's dental health which will be known as the 'CADOs' Databank'. The programme adheres to the broad outline for such surveys drawn up by BASCD, the British Association for the Study of Community Dentistry (Palmer, Anderson and Downer, 1984), in order that valid comparisons can be made with representative English data being gathered by others.

This first report presents the results from the initial country-wide survey of 4,472 5-year-old children which was conducted in November of 1987. Further examinations of 5-year-olds are timetabled biannually, alternating firstly with 12-year-olds and then 14-year-olds.

2. Sampling

Detailed instructions, based on BASCD guidelines, were sent out to all Health Boards by June 1987 in order to expedite the identification of the numbers and schools required to obtain a stratified sample of at least 5% of all primary I schoolchildren. Small Health Boards used larger samples (to ensure that reasonable numbers to permit valid inter-Health Board comparisons would be available); while, for local reasons, one small Health Board, Shetland, took the opportunity to attempt a much larger sample.

3. Training and Calibration

The difficulties associated with trying to get a number of different dentists to reproducibly diagnose and measure the extent of dental disease, even when using standardised, clearly stated and written diagnostic criteria, are well known. In order to minimise the impact of such differences, and to assess their extent, two training and calibration courses were held for the 38 Community Dental Officers and their scribes who made up the examining teams for the survey.

The courses, organised by Mr. M.C.W. Merrett in conjunction with the Dental Health Services Research Unit, were held in Perth on the 28th/29th and the 29th/30th October, 1987. The first course was for examiners with no previous experience of epidemiological surveys, while the second was for those who had assisted previously with the Office of Population Censuses and Surveys' (OPCS) surveys. By the end of the courses a reasonable standard of inter-dentist agreement had been demonstrated.

4. Dental Examinations

Nearly all examinations took place during the month of November 1987. Table 1 below sets out the number of children examined in each Health Board Area and the final percentage of the local Primary I population this represents. (This percentage was influenced to a variable degree by children absent from school on the day of the examination, those who had left the chosen school by that time, those for whom parental consent had not been obtained and the modest number who declined to be examined.)

Table 1. Numbers of children examined in each Health Board Area and percentage of the Areas' population of 5 year olds which this represents.

	Examined	% of 5yr old population
Argyll and Clyde	302	4.9
Ayrshire and Arran	265	5.5
Borders	114	9.4
Dumfries and Galloway	187	8.5
Fife	260	5.8
Forth Valley	229	7.0
Grampian	449	7.3
Greater Glasgow	712	6.4
Highland	215	7.5
Lanarkshire	416	5.6
Lothian	586	7.2
Orkney	104	46.4
Shetland	247	80.7
Tayside	289	6.5
Western Isles	97	23.4

5. Data Processing

The results sheets were posted to the Dental Health Services Research Unit in Dundee where the coded information was entered on the University of Dundee's mainframe computer. Only one form out of over four thousand received could not be processed (because it was not fully completed).

6. Results

6.1 The Results for Scotland

Table 2, below, sets out the overall results for Scotland as a whole in terms of decayed (d) missing (m) and filled (f) teeth.

Table 2. Overall dmft* results for Scotland, incorporating the data from the fifteen Health Boards (appropriately weighted).

Number of children examined	:	4,472
Number of children in Primary I	:	63,227
	Weighted Mean	Range of Means for Individual Health Boards
age (in years)	5.22	5.19 - 5.25
decayed teeth (d)	1.76	1.07 - 2.45
missing teeth (m)	0.50	0.22 - 0.77
filled teeth (f)	0.46	0.27 - 1.41
dft (d+f)	2.22	1.49 - 2.90
dmft (d+m+f)	2.72	1.86 - 3.40
	%	Range for Health Boards
With "zero caries" dft=0 [as defined by Scottish CADOs, 1986: no caries experience of deciduous teeth present]	43.9	36.3 - 56.3
With "no caries experience", dmft=0 (as per BASCD)	42.4	34.9 - 54.0
With "no active decay", d=0	51.9	41.6 - 66.0

(*N.B. Data collected in accordance with Scottish Committee of CADOs' BASCD guidelines; caries recorded at the 'cavitation' level; and one missing tooth taken as equivalent to 4 (canines) or 5 (molars) surfaces.)

It should be appreciated that in order to adhere to the BASCD guidelines these figures only record dental decay (caries) at the 'cavitation' level of diagnosis; that is: dental caries that has produced a definite hole in the tooth surface is recognised as caries, while teeth with 'earlier' forms of dental caries (in which no surface breakdown is yet evident) are regarded as 'sound'. Table 2 gives an overall value for so-called "zero caries" (dft=0) as this is a measure, defined by Scottish CADOs, which is used by many Health Boards for locally collected data. The values are similar to, but slightly different from, the BASCD measure of "no caries experience" (dmft=0) which is useful in order to allow comparisons with results collected from England and Wales. The "no active decay" category ignores all evidence of past caries attack (filled or missing surfaces) and considers only those teeth present and with active decay at the time of the examination.

6.2 The dental caries experience for each Health Board

Table 3, below, sets out the results for each Health Board by listing the total caries experience, dmft, as well as all its constituent elements.

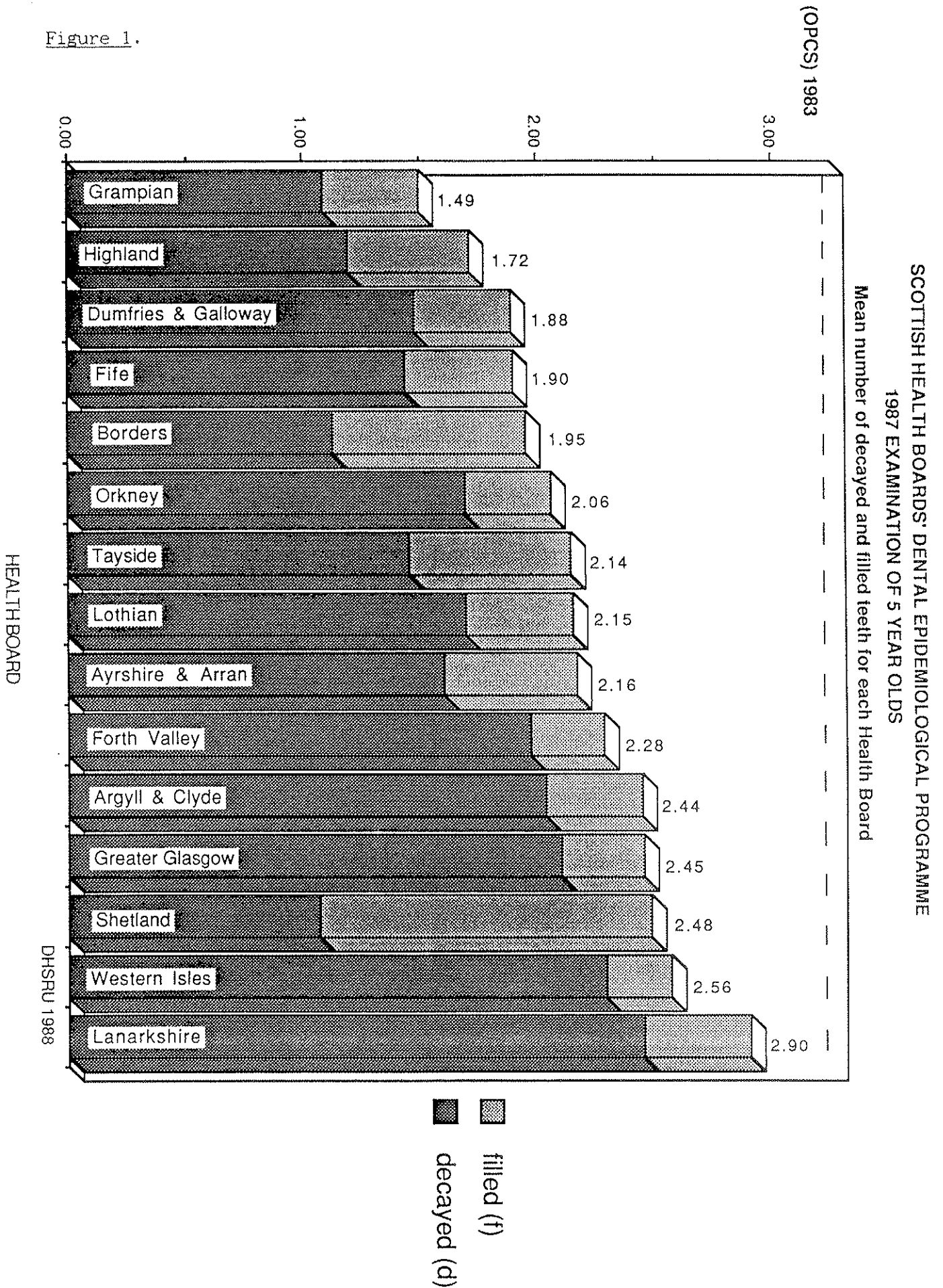
Table 3. Mean values, for each Health Board, for decayed (d), missing (m), and filled (f) teeth ordered from lowest dmft* value through to highest.

	d	m	f	dft	dmft
Grampian	1.09	0.36	0.41	1.49	1.86
Highland	1.20	0.40	0.52	1.72	2.12
Borders	1.13	0.22	0.82	1.95	2.17
Dumfries and Galloway	1.48	0.36	0.41	1.88	2.25
Fife	1.44	0.49	0.46	1.90	2.40
Lothian	1.69	0.33	0.46	2.15	2.48
Tayside	1.46	0.37	0.68	2.14	2.52
Ayrshire and Arran	1.60	0.43	0.57	2.16	2.59
Orkney	1.69	0.70	0.37	2.06	2.76
Forth Valley	1.97	0.52	0.31	2.28	2.81
Shetland	1.07	0.62	1.41	2.48	3.10
Western Isles	2.29	0.56	0.27	2.56	3.11
Greater Glasgow	2.10	0.73	0.35	2.45	3.17
Argyll and Clyde	2.03	0.77	0.41	2.44	3.21
Lanarkshire	2.45	0.50	0.45	2.90	3.40

(*N.B. All missing canines and molars considered lost due to caries.)

The table also includes the results for decayed and filled teeth (dft) which is often used as a measure by which to compare disease severity between different areas. The results (for dft and its components) for each Health Board are shown in graphical form in Figure 1 on the next page. This figure also includes, for reference, a dotted line showing the National value of dft (3.2) for 5-year-olds in Scotland found four years previously in 1983 by the National UK Survey conducted by OPCS (Todd and Dodd, 1985). (Note: this OPCS value cannot unfortunately be subdivided to show the 1983 position for each Health Board.)

Figure 1.



6.3 The proportion "caries free" in each Health Board

Table 4, below, sets out for each Health Board, the percentage of children with "zero caries" (dft=0) and the percentage with "no caries experience" (dmft=0).

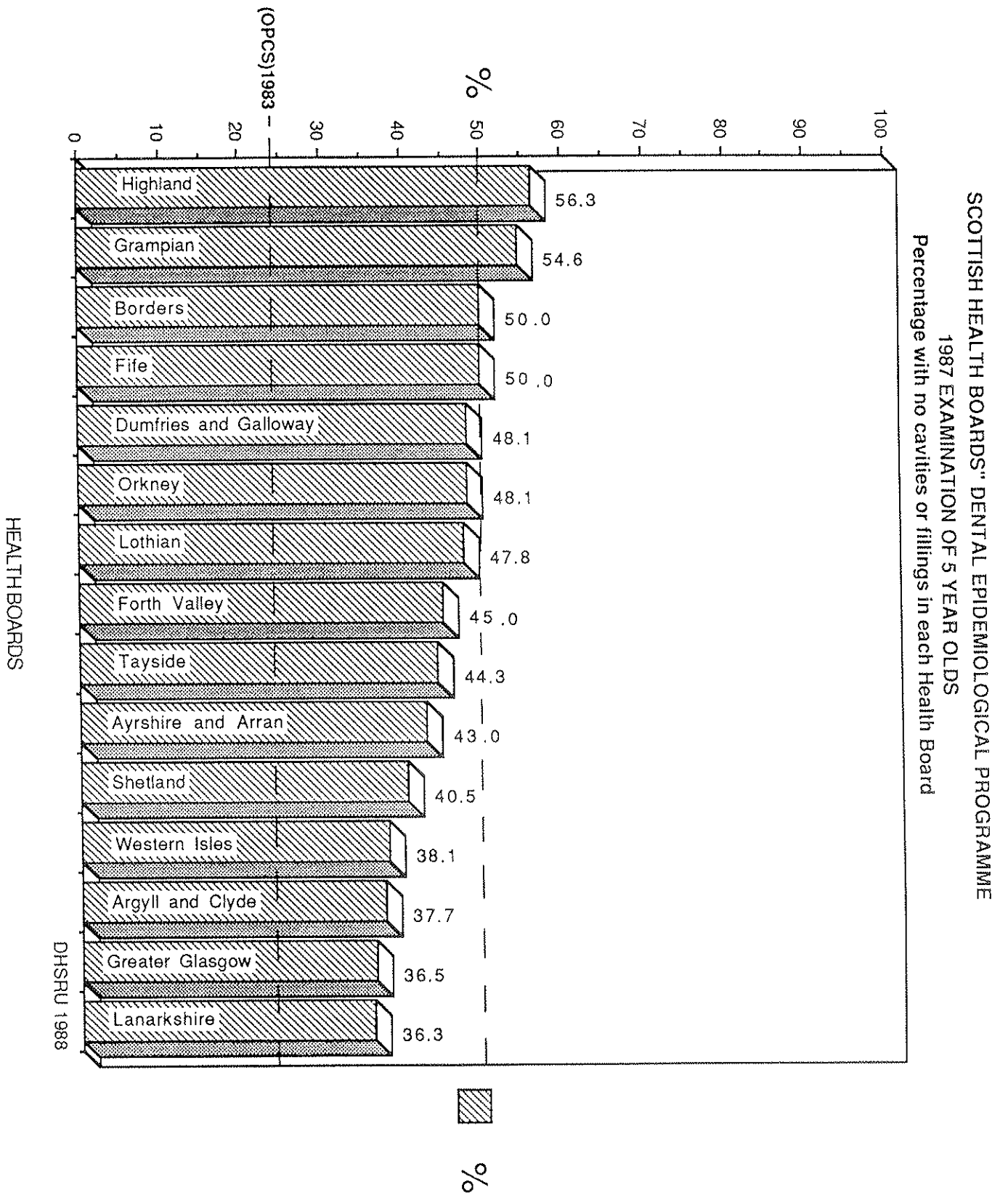
Table 4. *For the fifteen Health Boards, the percentage of children with (i) no caries experience of deciduous teeth present (dft=0)*, (ii) no caries experience when all missing canines and molars considered lost due to caries (dmft=0)*.*

	% with dft=0	%with dmft=0
Highland	56.3%	54.0%
Grampian	54.6%	53.2%
Borders	50.0%	49.1%
Fife	50.0%	48.8%
Orkney	48.1%	47.1%
Dumfries and Galloway	48.1%	46.5%
Lothian	47.8%	46.4%
Forth Valley	45.0%	44.1%
Tayside	44.3%	43.6%
Ayrshire and Arran	43.0%	41.1%
Shetland	40.5%	39.7%
Western Isles	38.1%	37.1%
Greater Glasgow	36.5%	35.4%
Argyll and Clyde	37.7%	35.1%
Lanarkshire	36.3%	34.9%

(*N.B. Caries is recorded at the 'cavitation' level.)

Figure 2, opposite, shows the "zero caries" (dft=0) results in graphical form for each Health Board, in addition to a dotted line showing the National Scottish situation in 1983 (% with dft=0 = 24%) as assessed by the OPCS National Survey (no Health Board breakdown available for 1983).

Figure 2.



7. Discussion

We are very pleased that, with a healthy measure of goodwill from all sides, this first locally co-ordinated National Scottish dental epidemiological examination has proceeded so smoothly and that, overall, a 7% sample of the primary I intake was achieved by the examination of 4,472 children from all over Scotland.

The overall results reveal a marked improvement in the dental health of Scottish 5 year old children in the four years since 1983, the last occasion when a representative National Scottish sample was reported on by OPCS (Todd and Dodd, 1985). The 1987 weighted mean for decayed and filled teeth (dft) is 2.2 (Table 2) which represents a 31% improvement over the 1983 figures of 3.2. It is evident from Table 3 that there is quite a marked regional variation in caries levels between the Health Boards, ranging from a dft of 1.49 for Grampian to almost double that value, 2.90, in Lanarkshire. Figure 1 reveals the differences between the Boards and also displays the different contributions made by the decayed and filled components to the overall dft values, the high relative proportion of filled teeth being particularly obvious in Shetland and Borders.

A marked improvement is also evident in terms of the proportion of the children who can be said to be "caries free" (at the cavitation level). When assessed by "zero caries" (dft=0), the 1987 value of 43.8% (Table 2) represents a dramatic improvement compared to the 1983 figure of 24%. Similarly to find that over 50% of the children (51.7%) had no active decay (d=0) is most encouraging. It is important, however, not to lose sight of the fact that by the age of 5 years, over half of the children in Scotland (56%) have already suffered from the ravages of dental decay - still an unsatisfactory state of affairs. The variation between Health Boards is once again evident (see Table 4 and Figure 2).

A similar general pattern is present in both figure 1 and figure 2 with the highest disease levels being seen in Lanarkshire, Western Isles, Shetland, Greater Glasgow and Argyll and Clyde respectively, while (comparatively) lower levels are evident in Grampian, Highland, Dumfries and Galloway, Fife and Borders. An intermediate level of disease was found in Forth Valley, Ayrshire and Arran, Lothian, Tayside and Orkney.

In spite of these sizeable improvements in Scottish dental health, when comparisons are made with the results of studies conducted in England and Wales (using comparable BASCD criteria), it is evident that Scotland remains in a less satisfactory position than other parts of the United Kingdom. The average of the 14 English and Welsh regions from whom BASCD has a 1985/6 weighted mean (BASCD, personal communication, 1988) gives a dmft value of 1.82 compared to the 1987 Scottish dmft of 2.73. Similarly, while the dmft=0 values for England and Wales in 1985/6 ranged between 42 and 65% (with 5 out of 14 regions at or above the 60% level) the average Scottish figure in 1987 was 42.3% (range 34.9% - 54.0%). It is worth noting that the Scottish children, even though they had more dental decay, were examined some two years later and at a slightly younger age (mean = 5.22 years) than their English and Welsh counterparts (mean = 5.56 years). When examined in isolation the Welsh figures were (at mean dmft = 2.52 and % dmft = 0 at 43%) worse than the English, but not quite as poor as the average Scottish results.

8. Acknowledgements

The Co-ordinating Committee and the authors are indebted for their kind and willing cooperation to all the children who took part in the dental examinations and to their parents and schools. Special thanks go to the Headteachers, staff and children of the Letham and North Muirton primary schools in Perth for kindly accommodating the essential training and calibration courses.

We would also like to convey our thanks to all the Community Dental Officers and their Dental Surgery Assistants who performed so well as dental examiners and scribes respectively; to Mrs. E. Patterson and Mrs. M. Ramsay for assisting with computer entry of the coded forms; to each of the Health Boards for providing the financial and human resources without which such a National exercise could not take place; and to the Chief Scientist Office of the Scottish Home and Health Department who fund the Dental Health Services Research Unit. The authors would also like to acknowledge the willing assistance given to this programme by all of our colleagues in the Dental Health Services Research Unit.

9. References

Palmer JD, Anderson RJ and Downer MC. Guidelines for prevalence studies of dental caries. *Community Dent Health* 1984; 1: 55-66.

Todd JE, Walker AM and Dodd P. *Adult Dental Health - Volume 2 - United Kingdom - 1978*. London: HMSO, 1982.

Todd JE, Dodd T. *Children's dental health in the United Kingdom 1983*. London: HMSO, 1985.

Todd JE. *Scottish Children's Dental Health 1983-1986*. London: HMSO, *in press*.

**Addendum to the 1987/88 Report
on the
Survey of Five Year Old Children**

Prepared by
Dental Health Services Research Unit
University of Dundee

<u>APPENDIX A</u>	Further details of the sample
Table A1	Numbers examined and numbers unavailable
<u>APPENDIX B</u>	Inter- and intra-dentist agreement
Table B1	Inter-dentist agreement
Table B2	Intra-dentist agreement
<u>APPENDIX C</u>	Results by tooth (dmft) and by surface (dmfs)
Table C1	Overall results for dmft and dmfs for Scotland
Table C2	Results for dmfs by Health Board
<u>APPENDIX D</u>	Caries experience by site
Figure D1	Distribution of caries experience by tooth
Figure D2	Distribution of caries experience by tooth surface

Appendix A

TABLE A1. *Details of number examined and numbers unavailable for examination.*

	Examined	% of 5yr old population	Not examined				% of sample
			Absent	Left	Parental refusal	Child refusal	
Argyll and Clyde	302	4.9	15	7	1	2	7.6
Ayrshire and Arran	265	5.5	16	7	35	0	18.0
Borders	114	35.4	6	2	4	1	10.2
Dumfries and Galloway	187	8.5	7	5	6	1	9.2
Fife	260	5.8	20	5	3	3	10.7
Forth Valley	229	7.0	13	2	32	6	18.8
Grampian	449	7.3	28	14	6	4	10.4
Greater Glasgow	712	6.4	73	20	189	3	28.6
Highland	215	7.5	2	2	0	0	1.8
Lanarkshire	416	5.6	39	1	6	3	10.5
Lothian	586	7.2	49	12	11	9	12.1
Orkney	104	46.4	5	0	1	1	6.3
Shetland	247	80.7	10	0	1	1	4.6
Tayside	289	6.5	16	3	3	3	8.0
Western Isles	97	23.4	6	0	0	0	5.8

Appendix B

TABLE B1. Inter-dentist agreement.

	Group 1	Group 2	Group 3	Group 4
Number of dentists	12	11	8	7
Number of subjects	11	10	8	9
ACTIVELY DECAYED TEETH				
Mean per dentist	5.583	11.000	19.250	3.143
Standard deviation	1.379	1.000	1.982	2.116
Coefficient of variation	0.247	0.091	0.103	0.673
FILLED OTHERWISE SOUND TEETH				
Mean per dentist	5.250	7.545	2.250	6.571
Standard deviation	0.452	0.522	0.886	0.787
Coefficient of variation	0.086	0.069	0.394	0.120
DECAYED, MISSING AND FILLED TEETH				
Mean per dentist	10.833	18.545	21.500	9.714
Standard deviation	1.267	1.036	2.138	1.704
Coefficient of variation	0.117	0.056	0.099	0.175
ACTIVELY DECAYED SURFACES				
Mean per dentist	8.500	17.455	46.125	3.714
Standard deviation	1.567	2.622	7.376	2.289
Coefficient of variation	0.184	0.150	0.160	0.616
FILLED OTHERWISE SOUND SURFACES				
Mean per dentist	7.833	11.455	3.500	7.429
Standard deviation	0.937	1.368	1.069	0.976
Coefficient of variation	0.120	0.119	0.305	0.131
DECAYED, MISSING AND FILLED SURFACES				
Mean per dentist	16.333	28.909	49.625	11.143
Standard deviation	2.103	2.212	7.782	1.952
Coefficient of variation	0.129	0.077	0.157	0.175

Note: Coefficient of variation = $\frac{\text{standard deviation}}{\text{mean per dentist}}$

TABLE B2. Intra-dentist agreement as assessed by the Dice Similarity Measure.

Dentist	for decayed surfaces	for filled surfaces	no. of cases
01	1.0000	1.0000	(12)
02	1.0000	1.0000	(4)
03	1.0000	1.0000	(12)
04	0.0000*	0.0000*	(5)
05	0.9697	1.0000	(10)
06	0.9832	1.0000	(10)
07	1.0000	1.0000	(20)
08	1.0000	1.0000	(16)
09	1.0000	1.0000	(11)
10	1.0000	1.0000	(15)
11	0.9091	1.0000	(17)
12	0.9474	1.0000	(14)
13	no decay	1.0000	(4)
14	0.9778	1.0000	(8)
15	0.8615	1.0000	(7)
16	0.9615	1.0000	(14)
17	0.9859	1.0000	(15)
18	0.9315	1.0000	(11)
19	1.0000	0.9951	(23)
20	1.0000	1.0000	(7)
21	0.9455	1.0000	(12)
22	1.0000	1.0000	(7)
23	0.9937	1.0000	(10)
24	0.9241	1.0000	(13)
25	1.0000	1.0000	(14)
26	1.0000	1.0000	(5)
27	1.0000	1.0000	(10)
28	0.9897	1.0000	(13)
29	1.0000	1.0000	(13)
30	0.9800	1.0000	(15)
31	0.9890	1.0000	(12)
32	0.9730	1.0000	(18)
33	0.9612	1.0000	(13)
34	0.9032	1.0000	(10)
35	0.9858	1.0000	(17)
36	0.9915	1.0000	(15)
37	0.9899	1.0000	(16)
38	1.0000	1.0000	(7)

* only one surface recorded as decayed and one as filled in either the first examination or the repeat examination.

Appendix C

PLEASE NOTE: Figures given in Table C1 differ fractionally from figures given in a similar table - Table 2 - of the 1987/88 report. This is due to notification by one of the Health Boards of a revised figure for their Primary I population. Individual Health Board results are not affected.

TABLE C1. Overall dmft and dmfs results* for Scotland, incorporating the data from the fifteen Health Boards (appropriately weighted).

Number of children examined	:	4,472
Number of children in Primary I	:	62,336
	Weighted Mean	Range of Means for Individual Health Boards
age (in years)	5.22	5.19 - 5.25
decayed teeth (d)	1.76	1.07 - 2.45
missing teeth (m)	0.50	0.22 - 0.77
filled teeth (f)	0.46	0.27 - 1.41
dft (d+f)	2.22	1.49 - 2.90
dmft (d+m+f)	2.72	1.86 - 3.40
decayed surfaces	3.75	2.24 - 6.47
missing surfaces (ms)	2.51	1.10 - 3.83
filled surfaces (fs)	0.76	0.46 - 2.02
dfs (ds+fs)	4.51	2.89 - 6.94
dmfs (ds+ms+fs)	7.02	4.60 - 9.72
	%	Range for Health Boards
With "zero caries" dft=0 [as defined by Scottish CADOs, 1986: no caries experience of deciduous teeth present]	43.9	36.3 - 56.3
With "no caries experience", dmft=0 (as per BASCD)	42.4	34.9 - 54.0
With "no active decay", d=0	51.9	41.6 - 66.0

*N.B. Data collected in accordance with Scottish Committee of CADOs' BASCD guidelines; caries recorded at the 'cavitation' level; and one missing tooth taken as equivalent to 4 (canines) or 5 (molars) surfaces.

TABLE C2. Mean values, for each Health Board, for decayed (*d*), missing (*m*) and filled (*f*) surfaces ordered from lowest *dmfs** value through to highest.

	ds	ms	fs	dfs	dmfs
Borders	2.24	1.10	1.26	3.50	4.60
Grampian	2.26	1.81	0.63	2.89	4.70
Highland	2.52	2.00	0.89	3.41	5.41
Dumfries and Galloway	3.20	1.81	0.66	3.86	5.67
Tayside	2.95	1.86	1.18	4.13	5.99
Lothian	3.70	1.65	0.83	4.53	6.18
Fife	3.24	2.45	0.71	3.95	6.40
Ayrshire and Arran	3.43	2.15	0.89	4.33	6.48
Shetland	2.26	3.09	2.02	4.28	7.36
Orkney	3.49	3.51	0.56	4.05	7.56
Greater Glasgow	3.93	3.60	0.57	4.49	8.10
Forth Valley	5.13	2.62	0.60	5.73	8.35
Lanarkshire	5.18	2.51	0.71	5.89	8.39
Argyll and Clyde	4.75	3.83	0.74	5.49	9.31
Western Isles	6.47	2.78	0.46	6.94	9.72

*N.B. All missing canines and molars considered lost due to caries.

Appendix D

FIGURE D1

SCOTTISH HEALTH BOARDS' DENTAL EPIDEMIOLOGICAL PROGRAMME 1987 EXAMINATION OF 5 YEAR OLDS

Distribution of cavities and past caries experience by tooth
(combined totals from 15 Health Boards appropriately weighted)

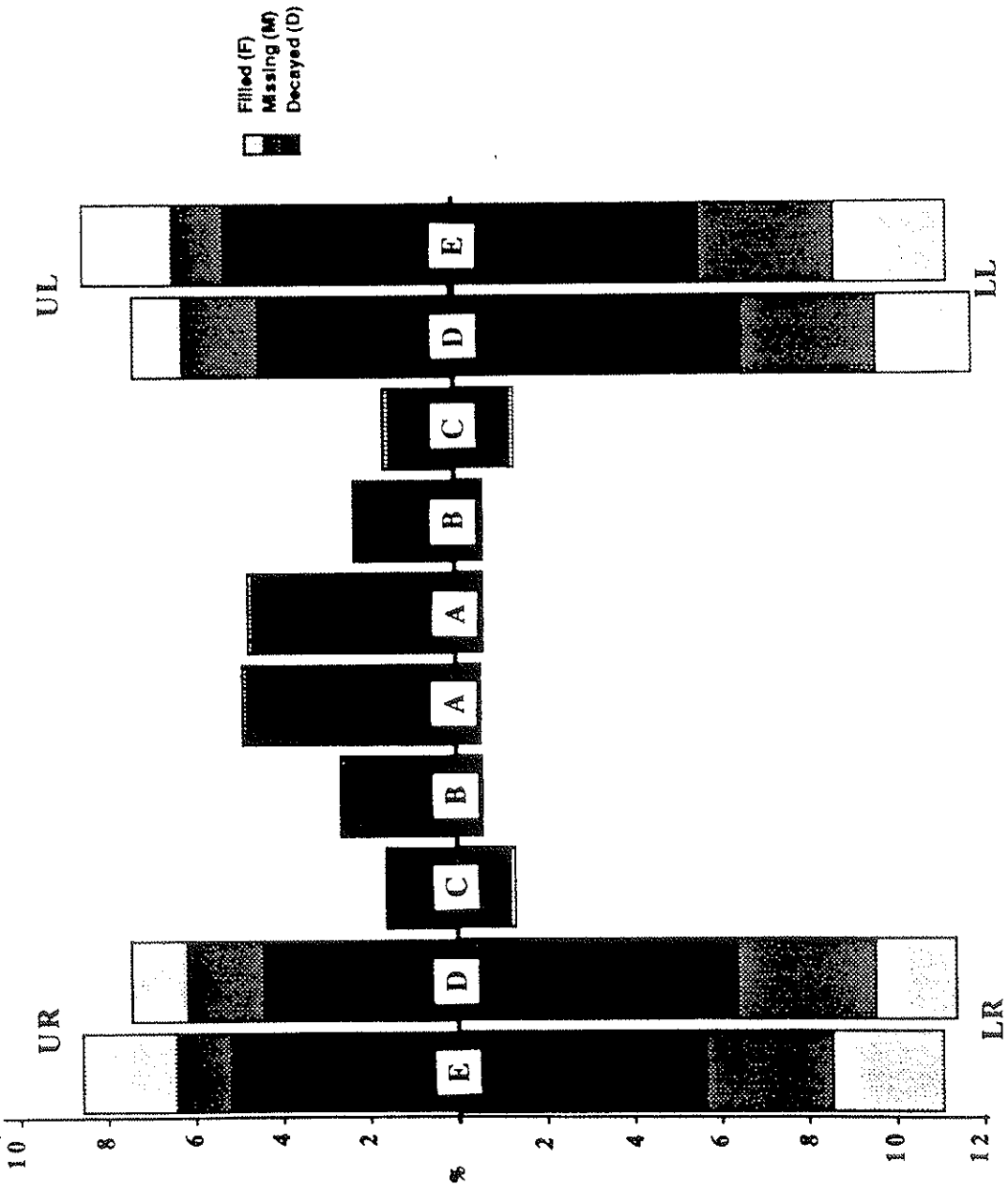
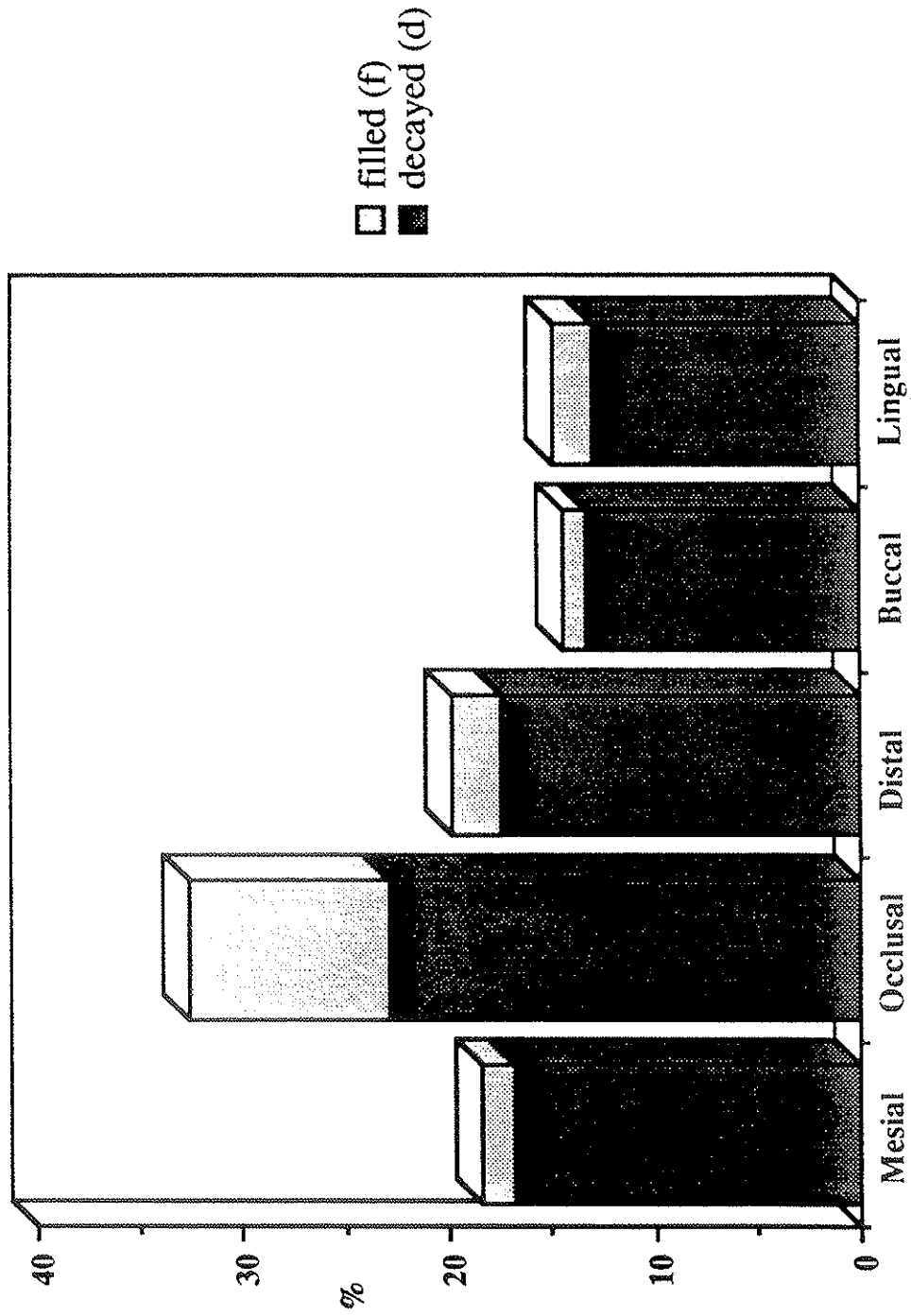


FIGURE D2

SCOTTISH HEALTH BOARDS' DENTAL EPIDEMIOLOGICAL PROGRAMME
1987 EXAMINATION OF 5 YEAR OLDS

Distribution of decay by surface using data from 15 Health Boards
appropriately weighted



ISBN 1 899809 00 7

1988