qualified and unqualified, registered and un-registered, Greek and barbarian, could not perform the task of the dentistry required, even if all were called in to attack it. Every year an increasing proportion of the population is demanding the services of a dentist. In the year 1905 the total number of registered dentists in the United Kingdom was 4,734; this year (1909) the number stands at 5,000, *i.e.*, about 1 to every 8,000 inhabitants. Any profession or political group that comes forward with a merely negative and restrictive policy is bound to meet with little support from the public at large. In the analogous case of general medicine with nearly 32,000 doctors on the register in practice in the United Kingdom no prohibition of unqualified practice has yet been obtained from Parliament, even though the risks arising therefrom are certainly more serious than the same dangers resulting from unskilful dentistry. By extending the scope of the dentist's work to the children of the elementary schools we are opening up a new field for professional practice and at the same time providing an opportunity for newcomers and supplying the needs of the nation; we are helping to build up the physical vigour of the great race to which we belong, and doing something to put our profession on a firm and honest foundation. Furthermore, we are bringing ourselves into line with those economic tendencies which make for the replacing of legislative interference from without by a system of the provision of national needs through the agency of the community itself.

FACIAL ERUPTIONS IN DIPHtheria CARRIERS.—Attention has been drawn to the presence of facial eruptions of herpetic or impetiginous nature in diphtheria contacts. Twice the Klebs-Löffler bacillus has been found in such conditions. In one case a boy of five at Hawley Crescent School was found with sores upon his face. The scab of one of these sores was lifted and a culture taken from the resulting raw surface. The growth gave vigorous colonies of Klebs-Löffler bacilli, which were submitted to virulence tests at the Lister Institute by Dr. Arkwright, who found that they were fully virulent. In another case at Elizabeth Street a culture of diphtheria bacilli was obtained from what appeared to be a single patch of impetigo upon the cheek of a school girl. In both instances there were found diphtheria bacilli also in the nasal discharges and in the throats.—*Annual Report of Dr. James Kerr, Medical Officer (Education), London County Council.*

THE TRAINED MIDWIFE; HER EFFECT UPON INFANTILE MORTALITY.

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LAST year I prepared a report under the above title, and the paper was published in the March number of PUBLIC HEALTH. The figures then submitted were so unexpected that in consequence I received several communications from various medical officers of health throughout the country, which were written in rather a sceptical spirit.

The same scheme has now been in operation in the Borough of Rotherham for another year, and this report includes the whole of the twelve months in 1908. The same inducements have been held out to the sixteen certificated midwives practising within the borough, and prizes varying in value have been offered to the three midwives who at the expiration of the twelve months ending December 31st, 1908, had the largest proportion of mothers living and the lowest death rate amongst their infants at the end of this period.

The figures for the year 1908 cover the complete twelve months, in place of eleven months dealt with in the year 1907.

There may possibly have been some sources of error in the figures submitted for 1907, but none of my numerous correspondents have been able to detect any.

The figures for the year 1908 cannot possibly contain any fallacies owing to the adoption in Rotherham of the Notification of Births Act. For the sake of comparison the following tables give the results arrived at for the years 1907 and 1908:—

TABLE 1.—1907.

Total number of births during 1907	1,833
Number of births notified by twenty-one certified midwives...	923
Number of deaths amongst midwives' cases	94
Infantile mortality rate amongst midwives' cases	101 per 1,000 births.
Number of births attended by other agencies	910
Number of deaths attended by other agencies	177
Infantile mortality rate by other agencies	194 per 1,000 births.
Total infantile mortality rate for 1907	147
England and Wales infantile mortality rate	118
Seventy-six large towns, including Rotherham	177
Annual average mortality rate for last ten years in Rotherham	160

TABLE 2.—1908.

Total number of births during 1908	2,093
Number of births notified by the sixteen certified midwives	939
Number of deaths amongst midwives' cases	87
Infantile mortality rate amongst midwives' cases	92 per 1,000 births.
Number of births attended by other agencies	1,154
Number of deaths of infants attended by other agencies	225
Infantile mortality rate for other agencies	195 per 1,000 births.
Total infantile mortality rate for 1908 (Rotherham)	149
England and Wales infantile mortality rate	121
Seventy-six large towns, including Rotherham	128
Annual average mortality rate for last ten years in Rotherham	159

The "other agencies" include nine uncertificated women practising within the borough, five of whom were *bonâ fide* midwives but were struck off the roll and had their certificates cancelled by the Central Midwives Board. This class also includes "handy women," and the various medical men practising within the borough.

None of these cases have been visited by any of the officials connected with the Public Health Department of Rotherham, medical men naturally resenting any interference with the management or treatment of their patients.

A few births attended by these unqualified women have been notified, but the majority of them have only been discovered when visiting the houses for other causes.

A large number of births have not been notified in accordance with the Act; these have all occurred in a particular portion of the borough, and the highest infantile mortality rate has been amongst these.

In my report last year I stated that I had no hesitation that these figures could be materially improved in future years if proper supervision and encouragement were given to these certified midwives.

During the year 1908 a Voluntary Health Association was formed in Rotherham, consisting of a lady superintendent for each of the nine wards in the borough, with two or three lady helpers, according to the number of births in each ward.

Nearly 1,000 births were notified to these ladies, a list being sent each Monday morning after the midwife has finished her attendance.

These ladies must have paid 3,000 to 4,000 visits during the year, and, as I have already stated, practically only visited births reported

by *bonâ fide* midwives, as the births reported by medical men and "other agencies" have been ignored.

I can come to no other conclusion than that it is due to their untiring efforts that the infantile mortality rate amongst these specially looked after infants have been even more startling than they were for the year 1907.

The mere fact of some of these ignorant mothers knowing that one of these voluntary ladies may call in unexpectedly has a great moral effect.

These ladies have kindly undertaken the following duties:—

1. To advise expecting mothers on the management of their health.

2. To follow up the notification of births, and to visit the homes when a midwife has ceased to attend.

3. To note the conditions of ignorant feeding, or of non-supply of sufficient and nourishing food, and to take judicious steps to correct these evils.

4. To give advice on the proper feeding of infants; to warn mothers against premature weaning; to inculcate in particular the importance of breast feeding until the teeth appear; and, above all, of the avoidance of the use of fowl feeding-bottles.

5. To promote and encourage the practice of weighing infants regularly, and to instruct or remind mothers on points of simple hygiene.

6. To note any insanitary or foul conditions in any of the homes visited, and in any of the inmates of the same, and to report these points to the medical officer of health under whom they work.

These ladies visit and re-visit the cases forwarded to them, and keep them under observation.

The greatest care is exercised to avoid touching upon the *domain of the family doctor*—these are never visited—except by request of the usual medical attendant. Great care is exercised by these ladies in any matter which can have even the appearance of diminishing parental respect, and particularly maternal responsibility. These ladies have also opportunities of impressing upon people the importance of hygiene and temperance, and they also deal with the home, with the person, the question of good nourishing food, fresh air, sunshine, cleanliness, etc., etc.

The total number of certificated midwives in Rotherham at the present time is 16. These midwives attend, approximately, 50 per cent. of

the whole births. About 25 per cent. of the births are attended by medical men, and about 25 per cent. by unqualified women, etc.

During the year the Midwives Committee of the Rotherham Corporation passed a resolution agreeing to pay a fee of £1 1s. where a medical man was called in at the request of a midwife in cases of flooding, convulsions, and rupture of the uterus, provided that the wages in each family did not exceed the amounts stated in the following table:—

TABLE 3.

Man and wife	£1 1 0	per week.
Parent or parents and 1 child ...	1 3 0	"
" " 2 children	1 5 0	"
" " 3 "	1 7 0	"
" " 4 "	1 9 0	"
" " 5 "	1 10 6	"
" " 6 "	1 12 0	"
" " 7 "	1 13 0	"

This resolution was passed on my request, and was carried at one meeting of the Council, but, unfortunately, at the succeeding meeting it was rescinded. This was chiefly owing to the fact that the medical men in Rotherham did not consider the terms sufficiently remunerative. Consequently on a later date, after the receipt of a communication from the Local Government Board, the Rotherham Board of Guardians passed the following resolution:—

"That a letter be sent to the medical men and certificated midwives practising within the Poor Law Union of Rotherham, informing them that the Guardians will under cases arising on Rule 18 of the Central Midwives Board's Regulations, on being satisfied that the woman is too poor to pay the medical fee, be prepared to exercise their powers under the section, and to pay a fee to the medical men called in of 10s. 6d. for ordinary cases and £2 for difficult cases of confinement."

This is now in operation in the Borough of Rotherham.

There can be no question that the Midwives Act is emphatically a public health measure.

The chief objects its promoters had in view were the lessening of the mortality (infantile) and sickness associated with child-birth; the importance of this field for preventive effort is apparent from the fact that, in 1906, the number of women who died in England and Wales from diseases associated with pregnancy was no less than 3,757, equivalent to a rate of 4.02 per 1,000 births. In the preceding ten years, the death-rate averaged 4.48 per 1,000 births.

For every case of puerperal fever there is in addition a large amount of non-fatal sickness associated with this mortality, and for every death from this disease there are probably half a dozen cases of chronic illness, which causes continuous suffering or prolonged or permanent disablement.

The prevention of this enormous amount of preventable suffering is alone a matter of great importance. In actual administration the scope of the Midwives Act has been extended.

The work of the midwife has been co-ordinated with that of the female health visitor, and the Act has become a potent measure for the prevention of infantile mortality. The executive officers on whom the administration of the Act fall are the medical officers of health of the Counties and the County Boroughs and the annual reports of these officers afford ample evidence of the fact that the Midwives Act will in time become one of the most valuable public health measures.

The experience of the last few years has brought into prominence various important questions relating to midwives and their work that will require careful consideration, and probably improved legislation, before the full benefit of the Act can be reaped.

The following tables give the percentage of mothers and children living, and the infantile mortality rate, which have occurred amongst the cases attended by the sixteen midwives practising within the borough, together with the prizes awarded and the number of marks obtained during the years 1907 and 1908.

TABLE 4.—1908.

No. of Midwife.	Cases attended.	Percentage of children living.	Percentage of mothers living.	Infantile mortality rate.
1	2	100	100	—
2	3	100	100	—
3	97	94.8	100	51
4	17	94.1	100	59
5	148	93	99	47
6	41	92	100	73
7	60	91.6	100	83
8	76	93.4	97	66
9	20	90	100	100
10	32	87.5	100	125
11	47	89	98	106
12	174	87	99	120
13	85	87	100	129
14	30	86.6	100	133
15	74	88	98	91
16	28	82	100	178
17	3	66	100	333
18	2	50	100	500

TABLE 5.

	Number of cases attended.	Death rate per 1,000 births.
1	3	—
2	1	—
3	118	50
4	18	55
5	16	62
6	68	73
7	40	75
8	172	87
9	66	90
10	44	90
11	50	100
12	10	100
13	10	100
14	100	120
15	58	120
16	81	135
17*	25	200
18	10	200
19*	21	238
20*	12	333
21*	—	—

* Removed from Midwives Roll.

TABLE 6.—GIVING DETAILS OF 939 BIRTHS DURING 1908.

No. of midwife.	No. of cases.	Children living.	Children deceased.	Mothers living.	Mothers deceased.	Breast fed.	Bottle fed.	Still Births.	Medical help required.
1	2	2	—	2	—	2	—	—	—
2	3	3	—	3	—	3	—	—	—
3	97	92	5	97	—	88	8	1	10
4	17	16	1	17	—	14	3	—	2
5	148	141	7	147	1	136	8	4	4
6	41	38	3	41	—	35	4	2	1
7	60	55	5	60	—	46	12	2	4
8	76	71	5	74	2	66	6	4	5
9	20	18	2	20	—	16	3	1	5
10	32	28	4	32	—	28	4	—	1
11	47	42	5	46	1	36	7	4	*
12	174	153	21	173	1	149	20	5	12
13	85	74	11	85	—	76	6	3	12
14	30	26	4	30	—	23	7	—	1
15	74	67	7	73	1	63	6	5	18
16	28	23	5	28	—	19	8	1	*
17	3	2	1	3	—	2	1	—	1
18	2	1	1	2	—	1	1	—	—
Total	939	852	87	933	6	803	104	32	76

* Not notified.

TABLE 7.—PRIZE LIST, 1908.

Registered No. of midwife.	Number of cases attended.	Percentage of mothers living.	Percentage of children living.	Number of marks obtained.	Total possible (mother and child counting two).
1st. 4,924	97	100	94.8	194.8	200
2nd. 1,993	148	99	93	192	200
3rd. 2,910	60	100	91.6	191.6	200

Corresponding numbers of prize winners on Table 5 are 3, 5 and 7.

It will also be noticed that the midwife who gained first prize in 1907 has won the second prize in 1908.

TABLE 8.—PRIZE LIST, 1907.

Registered No. of midwife.	Number of cases attended.	Percentage of mothers living.	Percentage of children living.	Number of marks obtained.	Total possible (mother and child counting two).
1st. 1,993	118	100	94.08	194.08	200
2nd. 2,144	68	100	92.7	192.7	200
3rd. 3,914	40	100	92.5	192.5	200

During the year 1908 six cases of puerperal fever have been reported by the certified midwives. Whenever a midwife has been in attendance in Rotherham upon a case of puerperal fever or from any other illness supposed to be infectious she is compelled to disinfect herself and all her instruments and appliances to the satisfaction of the sanitary authority, and all her clothing has to be thoroughly disinfected before going to another labour.

All washable clothing must be washed and other clothes disinfected by the sanitary authority.

VERMINOUS HAIR IN PUPIL TEACHERS.—During 1908 I examined, with the assistance of Dr. Holmes and a nurse, 28 male pupil teachers and 72 female, and also 26 male pupil teacher candidate scholarship holders and 54 female. . . . The hair of the girls was verminous in 44.4 per cent., but only one male was affected. The different proportion in which the two sexes are affected is due solely to the fact of the girls wearing their hair long and usually loose and unconfined. The regulation requiring all those engaged in teaching to wear their hair plaited or tied back has proved most useful, as it prevents the spread of infection by the teacher's loose hair sweeping over the heads of the children as she passes along behind them to inspect their work. No pupil teacher or scholarship holders are passed in the medical examination until the hair is absolutely free from any trace of vermin. So important do the Education Committee consider it that the elder pupils who may be contemplating entering the teaching profession should set an example as regards this plague of vermin that they require all fee-paying scholars in the secondary schools directly under the Committee's control to have their hair examined before admission. The result has been so satisfactory that of a large number examined in July as pupil teachers, whose hair had been set right at the general inspection six months previously, not one had relapsed; but all were quite free from vermin, although many of them had been employed in teaching, and so had been exposed to infection.—*Annual Report of Dr. Henry Handford, County Medical Officer of Health, Notts.*