

Report of the Working Party on the Recruitment and Training of Nurses.

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MINISTRY OF HEALTH
DEPARTMENT OF HEALTH FOR SCOTLAND
MINISTRY OF LABOUR AND NATIONAL
SERVICE

Report of
the Working Party on
**THE RECRUITMENT
AND TRAINING
OF NURSES**



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Nursing Inquiry

WORKING PARTY

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To

The Rt. Hon. Aneurin BEVAN, M.P.,
Minister of Health

The Rt. Hon. Joseph WESTWOOD, M.P.,
Secretary of State for Scotland

and

The Rt. Hon. George ISAACS, M.P.,
Minister of Labour and National Service

Introduction

Gentlemen

1. We were appointed as a Working Party, with a Steering Committee, in January, 1946, to review the position of the nursing profession. In a letter dated 21st January, 1946, we were advised that the impending establishment of a National Health Service would undoubtedly increase the demand for nurses even above the present level, and thus rendered a comprehensive review of the whole nursing service and its problems of first importance. It was suggested that we should survey the whole field of the recruitment and training of nurses of all types, including an examination of such questions as :—

- (a) What is the proper task of a nurse.
- (b) What training is required to equip her for that task.
- (c) What annual intake is needed and how can it be obtained.
- (d) From what groups of the population recruitment should be made.
- (e) How can wastage during training be minimised.

2. Our instructions were widely drawn and gave us the utmost freedom to determine the lines along which, and the limits within which, we should pursue our inquiry. We understood, however, that our objective should not be to attempt to formulate interim proposals to remedy or palliate the difficulties of the present, which are the immediate concern of the National Advisory Council on Nurses and Midwives, but rather to assess, if possible, what nursing force, in terms of quantity and quality, is likely to be required in the future for the National Health Service as developed, and to suggest how best that force can be recruited, trained and deployed.

3. We were assisted in our investigation by a Steering Committee of officials of the Government Departments most immediately concerned, *i.e.*, the Ministry of Health, the Department of Health for Scotland, the Ministry of Labour and National Service, the Ministry of Pensions and the Board of Control. This committee suggested lines of inquiry to us ; put at our disposal information in the possession of the Departments and was kept in touch with the progress of our inquiry. We as a Working Party are, however, solely responsible for this Report. The views it expresses and the conclusions reached are our own, and the Departments represented on the Steering Committee are in no way committed to them.

4. The ground we have had to cover is by no means unexplored : we are in no sense pioneers in new territory. In recent years the nursing profession with its problems has been the subject of a series of reports made by inter-departmental committees and other bodies. Thus a considerable mass of valuable material already exists (see Appendix I) directed to establishing the facts so far as possible, and to reaching conclusions and recommendations to alleviate the shortage of trained nurses. Many of these recommendations have been accepted in principle, and some are already in operation. Others again have proved impracticable under existing conditions. The problems involved are not peculiar to this country : they appear to be widespread, and similar surveys have in the recent past been carried out elsewhere, notably in Canada and the United States. We have carefully studied the whole of this material, and in particular the surveys contained in the Lancet and Athlone reports published before the war, and the more recent reports of the Nursing Reconstruction Committee of the Royal College of Nursing under the chairmanship of Lord Horder. We do not propose to overload our report with a detailed analysis of these : it will, we think, suffice to refer to previous findings as occasion arises.

5. In many respects we have concentrated on principles rather than details. Thus in considering a revised training syllabus we have not attempted to particularise, but have confined ourselves to outlining a scheme. Even if time had allowed, it would in our opinion have been inadvisable to do more, inasmuch as both we and the various bodies concerned were advised that our inquiries would be " without prejudice to the advice which Ministers will naturally wish to obtain from the various organisations interested in the nursing profession before new decisions are taken ".

6. Our Report falls into two main sections. The first, after indicating our method of approach, deals with the nursing profession as it stands—its size and structure—and with the intake and wastage of both trained nurses and student nurses. The second deals with the question of training and sets out our suggestions for a revised system and for the administrative machinery which we contemplate may be necessary to bring it into effect. Finally, we indicate the effect upon hospital staffing of the changes we propose, and our conclusions, so far as it is possible to reach conclusions, upon the problem of estimating future nursing requirements. In order to avoid breaking unduly the main thread of our thesis, we have placed in appendices material on certain special problems, *e.g.*, the nursing of the chronic sick and the mentally defective, and on other matters referred to in the Report but of which some amplification seemed desirable.

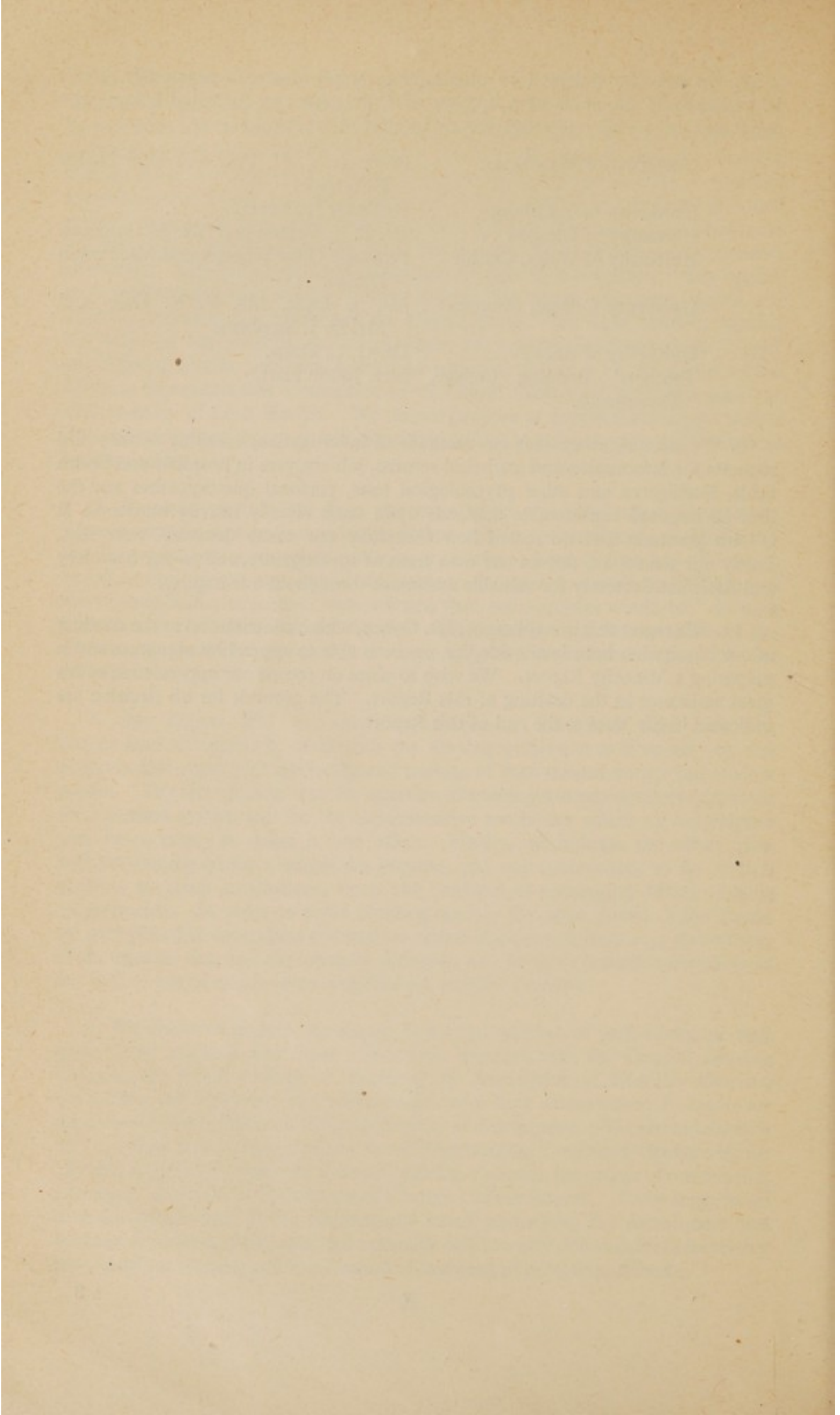
7. We desire to express our thanks to a large number of individuals as well as to many hospitals and other institutions, together with the General Nursing Councils, the Royal College of Nursing, the Association of Hospital Matrons, the College of Midwives and other bodies who have endeavoured to meet our requests for information on different aspects of our inquiry. We are indebted to Mr. Geoffrey Pyke (formerly Director of Programmes, Combined Operations) for valuable suggestions conveyed to us through Dr. Cohen in the course of our inquiry, relating in particular to the contents of Chapter I of our Report. These suggestions have indicated some of the fundamental issues underlying the recruitment and training of nurses and have pointed a possible way to a new criterion for determining the content of training and to a method of assessing nursing requirements.

8. We are also indebted to others for technical assistance generously given : in particular to the staffs of a number of Universities, as indicated below, who conducted tests and interviews for us in university towns :—

University of Manchester	..	Professor T. H. Pear and Mrs. Nancy Robertson.
University of Edinburgh	..	Professor J. Drever.
University of Glasgow	..	Dr. P. E. Vernon and Mr. A. Gardiner.
University of Wales, Cardiff		Professor Olive Wheeler and Mr. Powell Davies.
University College, Swansea	..	Mr. J. Lang, Mr. R. R. Dale and Mr. D. J. Stephens.
University of Bristol	..	Dr. G. C. Drew.
Teachers' Training College, Portsmouth.		Mrs. Judith Hart.

9. We are well aware that our methods of investigation, entailing as they did requests for information and statistical returns, job analyses in hospitals and health fields, intelligence and other psychological tests, personal questionnaires and the like, all imposed considerable demands upon staffs already heavily burdened. It is with gratitude that we record how cheerfully our many demands were met. Lastly our thanks are due to our own team of investigators, and to our Secretary and Assistant Secretary for valuable assistance throughout our inquiry.

10. We regret that our colleague, Dr. Cohen, whose contribution to the conduct of our inquiry has been invaluable, has not been able to append his signature and is preparing a Minority Report. We wish to place on record our appreciation of his great assistance in the drafting of this Report. The grounds for his decision are indicated in his Note at the end of this Report.



CHAPTER I

Method of Approach

11. As already indicated, since 1932 there has been a long series of reports and memoranda dealing with the problems of the nursing profession. Nothing would have been easier than to make a synthesis of the existing "literature," but a new departure in method seemed to be called for, if we were to arrive at some degree of finality in considering these problems. Merely to add one more expression of opinion on the needs of the nursing service to the large number already in the field would serve little purpose.

12. It seemed to us, therefore, that the best contribution we could make—indeed the main justification for further inquiry—was to attempt to carry out a scientific study of the problems confronting the nursing profession. We use the term "scientific" advisedly, in the sense of endeavouring to achieve the utmost objectivity and precision within the limits of our competence and the time at our disposal, and to reach conclusions not resting solely on opinion but verifiable by reference to facts. Our object has been, not to form impressions, but to discover, if we can, the facts and let the facts speak for themselves.

To illustrate what we have in mind we may refer to proposals that have been made either to extend or to reduce the period of nurse training. In no case, so far as we are aware, have they been based on any precise examination of how much time is now actually spent on learning specific nursing duties.

13. Common sense and good judgment are an indispensable but not, by themselves, a complete equipment for attacking social problems. Technical methods are also called for, as is evidenced by experience gained in other fields, both civilian and service, where comparable problems exist. In the light of this experience it became evident at an early stage that our main inquiries would fall within the accepted area of psychological and statistical research—social, industrial and educational.

14. Certain assumptions that we have made must be explicitly stated. We assume, in the first place, that, whatever the nursing problems are, they are susceptible of scientific analysis and treatment. Secondly, we assume that the normal peace-time community in Great Britain is potentially able to maintain adequate social and health services for its members, though the actual range and quality of those services will depend on how much the community can afford to spend on such services, and on the man and woman power that can be spared for staffing them. Any other assumption would mean that the community could neither safeguard its health nor nurse its sick.

15. The problem of staffing the nursing services cannot be isolated from other health and social problems. Indeed, setting aside humanitarian considerations, it might be regarded as an economic problem. The basic question calling for an answer might be formulated as how best we can employ the economic and manpower resources available to achieve an increasingly higher standard of health in the community. This in turn requires that we should ascertain the optimal effort that needs to be devoted to preventive and curative services respectively, so as to secure the greatest possible reduction in the incidence and duration of sickness and consequent incapacity and loss of production.

16. The total cost of sickness shortly before the war has been estimated at not less than £300 millions a year*. We may safely assume that the cost was no less in 1938, a year for which reliable estimates of the national income are available. In 1938 the national income was about £4,600 million. Thus the cost of sickness was about 7 per cent.

Three main items were estimated as entering into the cost of sickness as follows :—

<i>Item</i>	<i>£ millions</i>
1. Value of work lost through sickness	100
2. Treatment and maintenance of the sick	185
3. Public preventive services	13

17. The first two items suggest the question—what reduction of loss of work through sickness might result from an increase in nursing strength? The answer to this question would give an indication of the optimal size of the nursing profession.

There remains the third of the items of sickness cost listed above, namely, the cost of the public services for the prevention of ill-health. At present this item may be estimated at not more than about 4 or 5 per cent. of the total cost of sickness. Here again the question arises how far the loss of production through sickness might be reduced by a given increase in the efforts devoted to the prevention of ill-health.

18. A considerable amount of disease and mortality is preventable. The infant mortality rate in England and Wales declined from 156 per 1,000 live births in 1896-1900 to 45 in 1944. Death rates from infective diseases in particular show a marked decline. The death rate from diphtheria was reduced by 84 per cent. between 1871 and 1945. In the same period the death rate from respiratory tuberculosis declined by 75 per cent. The number of cases of scarlet fever was reduced by half in 1944 as compared with 1934. The Chief Medical Officer of the Ministry of Health writes of diphtheria : " It is a sad reflection that in this country during the war far more children under 15 were killed by this preventable disease than by enemy bombs ".† In Canada the incidence of this disease in 1937 was less than 1 per 100,000 as compared with 149 in England and Wales. " The conclusion arrived at, therefore, is that diphtheria can be controlled by persistent and relentless effort ". Similar reductions in incidence are doubtless possible in the case of other disabilities of body and mind.

19. Clearly the problem of sickness can be attacked quite as much by reducing the number of patients as by increasing the number of nurses. A scientific study of the health needs of the community would enquire what is the greatest reduction in item 1 above which could be brought about by increase in expenditure on item 3. The data have not been available to enable us to make these calculations. But the proper stage for the estimation of *sick nursing* requirements should be subsequent to the estimation of the optimal requirements of *health nursing* services.

20. Nor can the optimal nursing requirements of the community be properly assessed before first estimating what further contribution medical and allied research could make to the reduction of sickness. Before the war the annual cost

* " Report on the British Health Services." Published by P.E.P. 1937.

† " On the state of the Public Health during six years of war." Report of the Chief Medical Officer of the Ministry of Health. H.M. Stationery Office. 1946.

of medical research was not more than £500,000 a year—less than one-fifth of 1 per cent. of the total cost of sickness. Despite any increases that may have been made since, if the optimal level of research has not yet been reached, the requirements of nursing can only be estimated in relation to a sickness burden which might be reduced.

To some extent the long-term solution of the problem of staffing the nursing services lies in reducing the burden of sickness. This may mean investing more money in medical research, *e.g.*, in gerontology, psychiatry, the study of tuberculosis, genetics and in other fields, and allocating larger funds to public health work in the preventive field, school nursing, improved nutrition, better housing, health education and preventive facilities generally.

21. The success of a National Health Service will depend as much on a sufficient supply of adequately trained nurses as on a sufficiency of doctors. In attempting to assess the numbers and quality required our task has not been made easier by the almost complete lack of reliable statistical data necessary to provide essential background information showing the composition and structure of the existing nursing profession. Such statistics as were available were at best inconclusive and at worst actually misleading.

22. Even the basic figure of the total numbers engaged in nursing could not be ascertained with any degree of accuracy, while figures relating to numbers in the various fields of nursing were equally uncertain. There are no means of finding out to what extent the Registers of nurses are "live" or not—*i.e.*, what proportion of those whose names appear in the various Registers is in fact actively engaged in nursing. The position is further complicated by the fact that any one nurse's name may appear on one or more of the Registers according to the qualifications she holds. Furthermore, there is no record of the age-groups or of socio-economic or education levels, or even of an individual nurse's status in the profession. Such statistics as were available from the Ministry of Labour and National Service, Ministry of Health and Department of Health for Scotland did not appear to be systematised and in some instances were not even comparable. In our view it is essential to future organisation and planning that steps should be taken by the Health Departments to secure appropriate statistical returns from year to year.

23. In the absence of reliable figures we decided that a real effort must be made to provide a statistical background for our own and any succeeding investigations, to make it possible to detect the key problems and then formulate hypotheses for their solution. A great deal of fact finding had to be undertaken before we could even decide which were major and which minor problems, and which were not really problems at all. Hence the need for field work, as well as for the collection and analysis of a variety of data.

24. Fortunately, we have been enabled as a Working Party to pursue methods somewhat different from those normal to committee procedure. We have not taken formal evidence, whether oral or written, in the usual way. We have, of course, made informal contact with many of the bodies and organisations concerned in the recruitment, training and employment of nurses, but principally we have carried out our work in the field with the assistance of trained investigators placed at our disposal for the purpose.

These field studies have involved direct contact with a substantial and representative sample of nurses of all ranks employed in all fields of the profession

and in all types of institution. We have visited and carried out various inquiries and tests in over 200 hospitals—Voluntary and Municipal General, Maternity, Public Health, Poor Law, Mental and Tuberculosis—in every part of England, Scotland and Wales. This large, diverse and widely scattered group was chosen statistically and may be taken as a representative sample of the hospital nursing services of the nation.

CHAPTER II

Number of Nurses

25. *Pre-war position.* In 1938 there were in the hospitals* of Great Britain 46·7 thousand trained nurses and midwives, about 43·3 thousand student nurses and pupil midwives, and about 24·3 thousand other nursing staff. By “trained” nurses we mean those who have passed the final examination for the general or supplementary registers, State Certified Midwives, and those with the certificate of the Royal Medico-Psychological Association. In public health, private and miscellaneous nursing, other than the Armed Forces, roughly 32·1 thousand trained and some 11·6 thousand other nurses were employed. Thus the grand total of civilian nursing strength, male and female, in Great Britain in 1938 was about 158,000, representing 3·4 per 1,000 of the population. The total number of trained nurses and midwives was about 79,000, representing 1·7 per 1,000 of the population.

26. *Registration of nurses in 1943.* In 1943 there was a compulsory registration of all nurses and midwives under 60 years of age who had had nursing experience in the preceding 10 years. An analysis of the registration showed that the total number of nurses and midwives, trained and others, in employment in 1943, or who had been recently employed in nursing or midwifery, was about 243,000. This total comprised the following numbers of trained and other nurses:—

Trained Nurses and Midwives				Thousands
In hospitals	..	..	..	50·7
Elsewhere	..	..	..	40·0
				—
Total	..	..	..	90·7
				—
Students and pupil midwives	..	..	..	51·0
Assistant and other nurses	..	..	..	101·0†
				—
Total	..	..	..	242·7
				—

* Excluding about 200 trained and about 200 other nurses in Ministry of Pensions' hospitals. Unless otherwise stated, these will always be excluded where reference is made to hospitals.

† Including about 34,000 assistant nurses, 30,000 nursing auxiliaries and 13,000 nursing assistants employed or recently employed.

These figures, however, are no reliable guide to the total number of nurses in present employment. This could hardly be otherwise, since the registration was not limited to those in active nursing. The number of those inactive is likely to have been substantial.

27. *Present position.* At the end of 1945 the corresponding number of trained nurses and midwives in hospitals was about 47·5 thousand and the number of students, pupil midwives, assistant and other nurses about 80,000. In public health, private and miscellaneous fields of nursing, other than the Armed Forces, there were about 30·1 thousand trained and some 16·1 thousand other nurses. The total number of civilian nurses of all kinds working at the end of 1945 may be taken as approximately 174,000, representing 3·6 per 1,000 of the population. Included in these were about 78,000 trained nurses and midwives, representing 1·6 per 1,000 of the population.

A comparison between the nursing situation in 1938 and 1945 respectively is shown in the following Table.*

TABLE I

Civilian nursing strength in Great Britain at the end of 1938 and 1945

	End of 1938 Thousands	End of 1945 Thousands
TRAINED NURSES AND MIDWIVES—		
In hospitals	46·7	47·5
Elsewhere	32·1	30·1
Total	78·8	77·6
Ratio per 1,000 of population	1·7	1·6
OTHER NURSES (including student nurses and pupil midwives)—		
In hospitals	67·6	79·9
Elsewhere	11·6	16·1
Total	79·2	96·0
Ratio per 1,000 of population	1·7	2·0
TOTAL	158·0	173·6
Ratio per 1,000 of population	3·4	3·6

28. It will be seen from this Table that, although between 1938 and 1945 there was a small decline in the number of trained nurses and midwives in active employment, the total strength of the nursing force increased by over 15,000. The fact that the difficulties of the health services are still acute in all fields must be ascribed to the growth of the services and the consequent demand for increased staff, and in part to the diversion of the time and energies of nurses to work of a domestic character in the absence of adequate domestic staff. The efforts, too, made to reduce working hours have had their effect. To illustrate the expansion of demand reference may be made to the fact that in August 1945 the average number of occupied beds in hospitals and institutions in England and Wales,

* Fuller details of the distribution over different fields of nursing will be found in Table II at the end of this chapter.

other than mental and maternity hospitals and convalescent homes, was 242,600 as compared with 186,700 in December 1938, while the total nursing staff in those hospitals increased between those years by between 11,000 and 12,000.

TABLE II
Estimated number of nurses (male and female) and midwives in Great Britain in 1938 and 1945*

Field of Nursing	Thousands			
	End of 1938		End of 1945	
	Trained	Other	Trained	Other
HOSPITALS—				
1. General Hospitals (†)	24.2	43.9	25.3	56.4
2. Mental Hospitals and Institutions	15.3	14.0	14.2	12.2
3. Maternity Hospitals	1.2	1.8	3.0	2.5
4. Infectious Diseases' Hospitals	4.0	5.6	3.0	5.6
5. Tuberculosis Sanatoria	2.0	2.3	2.0	3.2
Total	46.7	67.6	47.5	79.9
PUBLIC HEALTH—				
6. Industry	3.5	3.5	3.5	3.5
7. Schools	2.2	0.2	2.0	—
8. Nurseries	0.2	0.5	1.0	6.1
9. Health Visitors	3.0	—	3.0	—
10. District Nurses and Midwives	15.4	—	14.0	—
11. Children's Homes	0.3	1.1	0.3	1.1
Total	24.6	5.3	23.8	10.7
12. Private Nursing	6.0	6.0	4.5	4.5
13. Ministry of Pensions' Hospitals	0.2	0.2	0.4	0.8
14. Colonial Nursing Services	0.6	—	0.8	—
15. Missions	0.6	0.1	0.5	0.1
16. Other Civilian Nursing	0.1	—	0.1	—
Total	7.5	6.3	6.3	5.4
TOTAL CIVILIAN NURSING	78.8	79.2	77.6	96.0
17. Armed Forces	0.9	5.6	10.1	67.0

* "Trained" nurses in the Table relate to nurses who have passed the Final Examinations for the general or supplementary registers, State Certified Midwives, and those with the certificate of the Royal Medico-Psychological Association.

† All hospitals other than those covered by items 2, 3, 4, 5 and 13.

NOTE.—The symbol — means nil.

Explanatory Notes on Table II

(The paragraph numbers refer to the items in the Table)

1, 3, 4 and 5. *Hospitals (excluding Mental)*. The figures for 1938 are compiled from the Hospital Surveys. The figures for 1945 are compiled from returns made to the Working Party through the Regional Offices of the Ministry of Health and by the Department of Health for Scotland.

2. *Mental Hospitals and Institutions.* According to information provided by the Board of Control, there were in 1938 about 21,600 nurses, trained and others, in mental hospitals in England and Wales. No corresponding figures are available for mental deficiency institutions. We have therefore assumed, on the basis of the number of beds, that there were in 1938, as at the end of 1945, approximately 3,400 nurses of all kinds in mental deficiency institutions in England and Wales. The true figure may possibly have been less in view of the increase in occupied beds since 1938. The total nursing strength of mental hospitals and institutions in England and Wales in 1938 has, therefore, been estimated at about 25,000. If the ratio of trained to other nurses was similar in 1938 to what it was in 1946, the figure of 25,000 includes about 13,400 trained nurses. If we add the 1938 figures of nursing strength in Scottish mental hospitals and institutions, *i.e.*, 1,900 trained and 2,400 other nurses, the totals for Great Britain amounted to about 15,300 trained and about 14,000 other nurses.

The figures for 1945 are based on returns to the Working Party from a random sample of mental hospitals and institutions in Great Britain. The sample covered about 33 per cent. of the hospitals and about 20 per cent. of the institutions.

6. *Industrial Nurses.* The estimated numbers of industrial nurses in 1938 and 1945 are based on figures given in the 1943 and 1944 Reports of the Chief Inspector of Factories. The actual figures quoted in these reports relate only to the years 1943 and 1944.

7. *Schools.* The figures relate to all schools under the Ministry of Education and the Scottish Education Department and, in so far as part-time nurses are employed, refer to whole-time equivalents. An unknown proportion of untrained nurses are included in the figure for trained nurses in 1945.

8 and 9. *Nurseries and Health Visitors.* The figures are provided by the Ministry of Health and the Department of Health for Scotland.

10. *District Nurses and Midwives.* The figures include district nurses, district nurse-midwives, village nurse-midwives, and domiciliary midwives. The figure given for 1945 relates strictly to the end of 1944 when there were 8,000 district nurses, nurse-midwives and village nurse-midwives. In addition there were about 6,000 domiciliary midwives.

11 and 12. *Children's Homes.* The figures are provided by the Ministry of Health.

13, 14 and 15. *Ministry of Pensions' Hospitals, Colonial Nursing Services and Missions.* The figures are based on returns to the Working Party from the Ministry of Pensions, the Colonial Office, and the Conference of Missionary Societies.

16. *Other Civilian Nursing.* The figures are provided by the Home Office, for nurses employed in prisons, and by U.N.R.R.A. for nurses employed by that organisation.

17. *Armed Forces.* The figures are provided by the three Service Departments.

CHAPTER III

Structure of the Nursing Profession

29. In the previous chapter we were concerned with the *size* of the nursing profession as a whole, and of its main branches. We now turn to consider the *structure* of the profession in qualitative as well as quantitative terms. Information showing how nurses are distributed with respect to age, educational background, qualifications, etc., is an indispensable part of the equipment needed for planning the future of the profession. No such information was available when we began our inquiries and we accordingly endeavoured to fill this gap in our knowledge.

30. An appropriate biographical questionnaire was drawn up to be answered by individual nurses so as to yield the background data required. This questionnaire was completed by all available nurses in our "stratified" sample* of hospitals, *i.e.*, a group of 184 hospitals proportionately representative of the number and type of hospitals in each Hospital Survey Region, and of the number of trained, student and assistant nurses in the respective Regions. From each "stratum" a random sample was chosen of approximately 5 per cent. of each grade of nurse: some 6,600 completed questionnaires in all.

31. The sampling method adopted for the hospital field could not, in the time available, be applied to the public health field, for which we had recourse to record cards kept at the Ministry of Labour Nursing Appointments Offices. Any relevant particulars recorded on these cards were transcribed on to questionnaires. A random 10 per cent. of the cards were dealt with in this way, though the information thus available for each nurse was not comparable with that volunteered by nurses in the sample of hospitals. The information set out in this chapter is based on the analysis of the results of those two sets of questionnaire.

The public health† nurses covered by this study are:—

- (a) District Nurses‡ and Midwives.
- (b) School Nurses.
- (c) Health Visitors.
- (d) Industrial Nurses.
- (e) Nurses in Nurseries.
- (f) Other miscellaneous categories (including prison and ship nurses).

32. *Age distribution.* More than half of hospital nursing staffs as a whole, including student nurses, are between 20 and 30 years of age. About 6 per cent. are under 20 years of age. 1 in 5 is between 25 and 30; 1 in 5 between 30 and 40 and 1 in 5 is 40 or more years of age. Nearly 40 per cent. of trained nurses in hospitals are between 25 and 35 years of age, and 47 per cent. between 35 and 55. About 6.3 per cent. are 55 years or older. (See Fig. 1.)

In the public health field where, at present, there are no student nurses, the age of nurses has a different distribution. Some 56 per cent. are between 30 and 40 and 17 per cent. between 40 and 55 years of age. Only about 2 per cent. are 55 or over.

* See paras. 65–67, Chapter V.

† Owing to the courtesy of the Royal College of Nursing we were able to obtain a large sample of the names and addresses of private nurses, chosen at random from the records. Questionnaires were circulated to these nurses but the proportion completed was too small to yield reliable results.

‡ Including a small number classified as "administrative."

Fig. 1.

AGE DISTRIBUTION OF NURSING
STAFFS IN THE HOSPITALS
OF GREAT BRITAIN

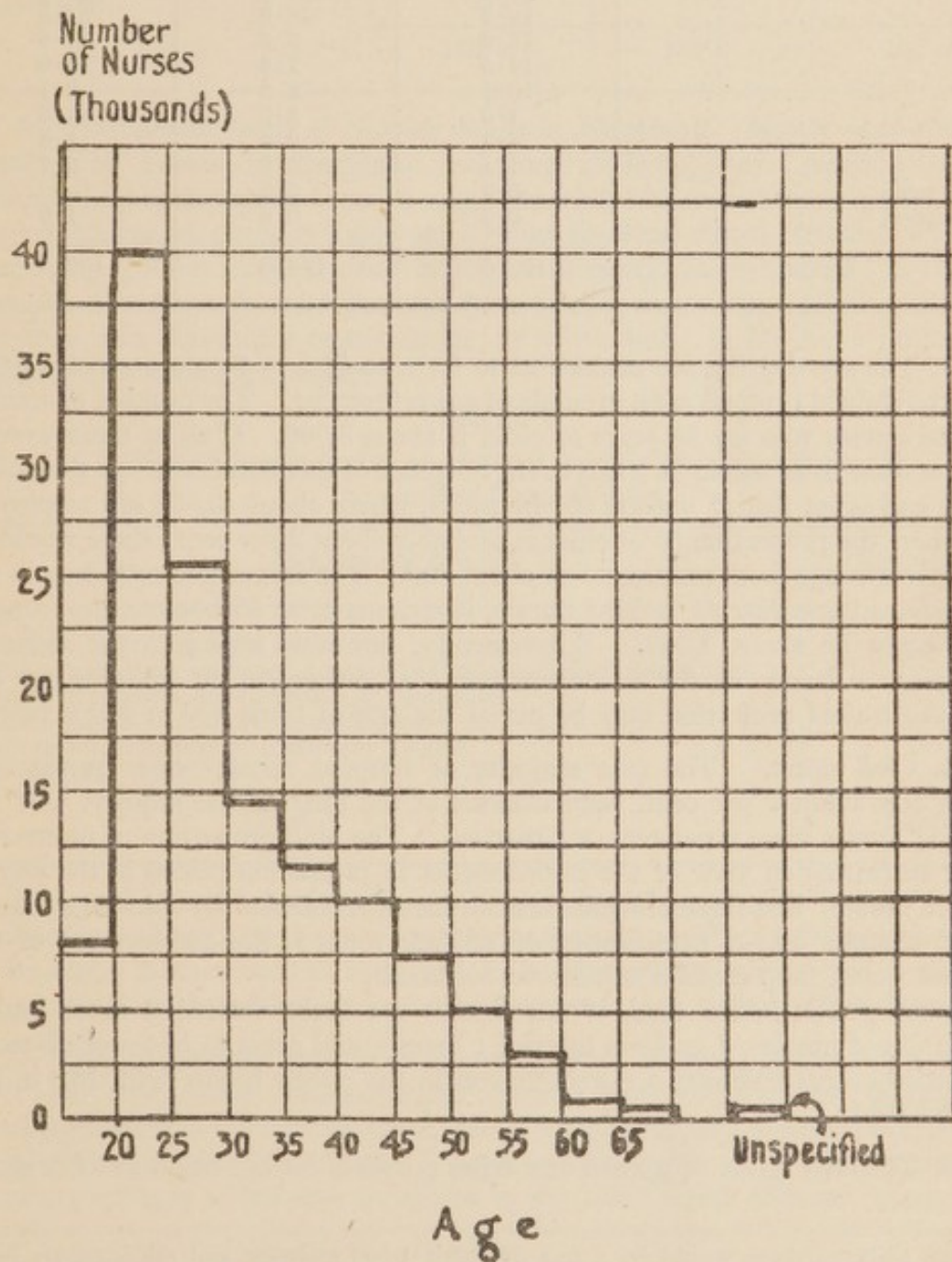


TABLE III
Estimated age distribution of nursing staffs in the hospital and public health fields.

Age	Hospitals		Public Health
	Trained Nurses	All Nurses	
	Percentage	Percentage	Percentage
Under 20	—	6.2	0.2
20-24	7.7	32.1	7.1
25-29	22.4	20.4	16.9
30-34	16.2	10.9	27.8
35-39	15.6	9.3	27.8
40-44	14.5	7.8	13.0
45-49	10.1	5.6	2.1
50-54	7.0	3.9	1.8
55-59	4.3	2.4	1.6
60-64	1.4	0.8	0.7
65 and over	0.6	0.3	—
Unspecified	0.2	0.3	1.0
TOTAL	100.0	100.0	100.0

33. The age distribution enables us to form an idea of future normal wastage from the trained profession on grounds of age retirement. The number of trained hospital nurses who are 55 years or older is about 3,000. If all of these were to retire at once there would be a loss to the hospitals of this number*. In the public health and other fields† outside the hospitals, where about 40,000 are employed, and where the proportion 55 or older is probably about 2 per cent., there would be a further wastage from retirement of about 800. The immediate total loss to the profession in one year of trained nurses, if retirement at 55 became the general rule, might be about 4,000. Subsequently, however, owing to the different age structure below 55, the retirement rate (*i.e.*, retirement on attaining age 55) from the *trained* profession may be put at the rate of some 800 to 900 a year.

34. *Civil status.* The vast majority of hospital nurses—nine in ten—are single, and about 7 per cent. were married at the time of the inquiry. Of the trained‡ nurses some 9 per cent. are married. The high proportion of unmarried is not surprising in view of the impediments to promotion placed in the way of married nurses. But these obstacles are not insurmountable. By suitable administrative changes and a modification of attitude towards the employment of the married nurse, they could doubtless be overcome.

In the public health field, if our figures are to be trusted, a much higher proportion of nurses—1 in 4—is married: there would seem to be fewer obstacles to married nurses following a nursing career in the public health field than in the hospital field.

35. The civil status of trained and other nurses is set out below in what detail is available.

* In addition there would be a loss of about 1,500 assistant and other nurses from hospitals.

† Including *trained* nurses in the Services.

‡ As defined in footnote *, Table II.

TABLE IV
Civil status of the nursing staffs in hospitals and public health fields

Civil Status	Hospitals		Public Health*
	Trained	Other†	
	Percentage	Percentage	Percentage
Single	88.5	91.9	72.0
Married	9.1	5.6	25.2
Widow	1.1	1.2	1.8
Other	0.2	0.2	—
Unspecified	1.1	1.1	0.9
TOTAL	100.0	100.0	100.0

36. *Educational levels of Nursing Staffs in Hospitals‡.* Nearly half the total number of nurses in hospitals, including students, have received full-time education up to the age of 14 or 15 only. Another 30 per cent. have received some further education, part- or full-time, without reaching school certificate standard. One in every 6 has reached school certificate or matriculation standard but has not proceeded further. Some 4 per cent. have been educated up to Higher Certificate standard (two years after matriculation) or above and 1 in 200 has a professional diploma or a university degree.

TABLE V
Estimated distribution of educational levels of nursing staffs in the hospitals of Great Britain

Educational Level	Percentages
Full-time education to 14 or 15	46.5
Full- or part-time education beyond 15 (without School Certificate)	29.6
School Certificate, Matriculation or equivalent	17.3
Higher School Certificate or equivalent	3.3
Professional Diploma or University Degree	0.5
Unspecified	2.8
TOTAL	100.0

Nurses working in Scottish hospitals (non-mental) apparently include a higher proportion—about 13 per cent.—with education up to Higher School Certificate or beyond. Nurses born in Eire seem to be of the same educational level, in so far as this is measured by years of schooling, as nurses born in Great Britain.

37. The educational level at different types of hospitals varies considerably. The voluntary general hospitals stand out with 36 per cent. of the nursing staff reaching matriculation level or above, the corresponding proportion in the municipal hospitals being about 15 per cent. The proportions below and above matriculation level in each type of hospital are shown in the Table which follows.

* Including a small number of male nurses.

† Students, assistant and other nurses.

‡ Particulars of educational background are only available for half the Ministry of Labour records for the public health sample of nurses; hence to quote them might be misleading.

TABLE VI

Proportion of nursing staff in each type of hospital above and below matriculation level.

Type of Hospital	Matriculation Level or Above	Below Matriculation	Total
	Percentage	Percentage	Percentage
General—			
Voluntary	36.0	64.0	100.0
Municipal	14.7	85.3	100.0
Mental	7.3	92.7	100.0
Maternity	25.5	74.5	100.0
Infectious Diseases	16.6	83.4	100.0
Tuberculosis Sanatoria	14.8	85.2	100.0

38. *Previous Occupational Experience of Hospital Nursing Staffs.* More than half of all nurses in hospitals have been employed in some previous occupation before entering nursing. For about 40 per cent. nursing has been the first employment. The vast majority of those who have had some previous occupation have been employed as clerical or skilled manual workers, the remainder having been mostly engaged in semi-skilled work. In the case of the mental hospitals a much larger proportion—21 per cent. as compared with 7 per cent. in all hospitals—have come to nursing from a semi-skilled occupation. The details are set out below :—

TABLE VII

Pre-nursing occupations of hospital nursing staffs in Great Britain

Occupation*	Percentage
I. Professional	0.1
II. Minor professional and business, including the Civil Service	1.9
III. Clerical, skilled manual workers, etc.	45.2
IV. Semi-skilled	6.5
V. Unskilled	0.9
VI. At school or no previous occupation	39.0
VII. Unspecified	6.3
TOTAL	100.0

* The first five categories are those used in the Registrar-General's Decennial Supplement, 1931, Part IIA.

It will be noted that some 55 per cent. of the nursing recruits transfer to nursing from other employment. This suggests that the extent of what has been termed "the problem of the gap"—the loss of potential recruits owing to their leaving school too early to proceed straight to training and taking up some other occupation—has perhaps been somewhat exaggerated. At the same time we have no doubt that the pre-nursing courses provided in various areas for girls between 15 and 17 or 18 years of age make a valuable contribution to nursing recruitment.

39. *Socio-Economic background.* About a third of the nurses in hospitals come from the socio-economic group embracing the minor professions, business,

and the Civil Service. Another third are recruited from the skilled worker class, as shown in the following Table :—

TABLE VIII
Occupations of fathers of nurses in the hospitals of Gt. Britain

Occupation	Percentage
I. Professional	5.1
II. Minor professional and business, including the Civil Service ..	33.9
III. Clerical, skilled manual workers, etc.	34.4
IV. Semi-skilled	8.4
V. Unskilled	2.1
VI. Deceased or "no occupation" or unspecified	16.1
TOTAL	100.0

40. *Number of hospital nurses from Eire.* We estimate that about 15,000, or some 12 per cent. of the total hospital nursing staff, were born in Eire. Some 5,000, or about 33 per cent., of these were employed in mental hospitals or institutions as compared with some 19 per cent. of nurses born in the United Kingdom. A rather higher proportion of Irish nurses seems to be employed in the public assistance institutions, tuberculosis sanatoria, and fever hospitals and a much smaller proportion in the voluntary general hospitals.

41. *Age on entering training*.* An appreciable proportion—17 per cent.—of hospital staffs entered nursing before they reached the age of 18 years, but the most popular year for entry appears to be the nineteenth; 1 in every 5 nurses entered at this age. Altogether 50 per cent. entered before they reached the age of 20 and 50 per cent. afterwards. A third entered nursing between their 20th and 26th birthdays, and 14 per cent. after they reached the age of 26. The estimated numbers entering at each age are set out in the following Table :—

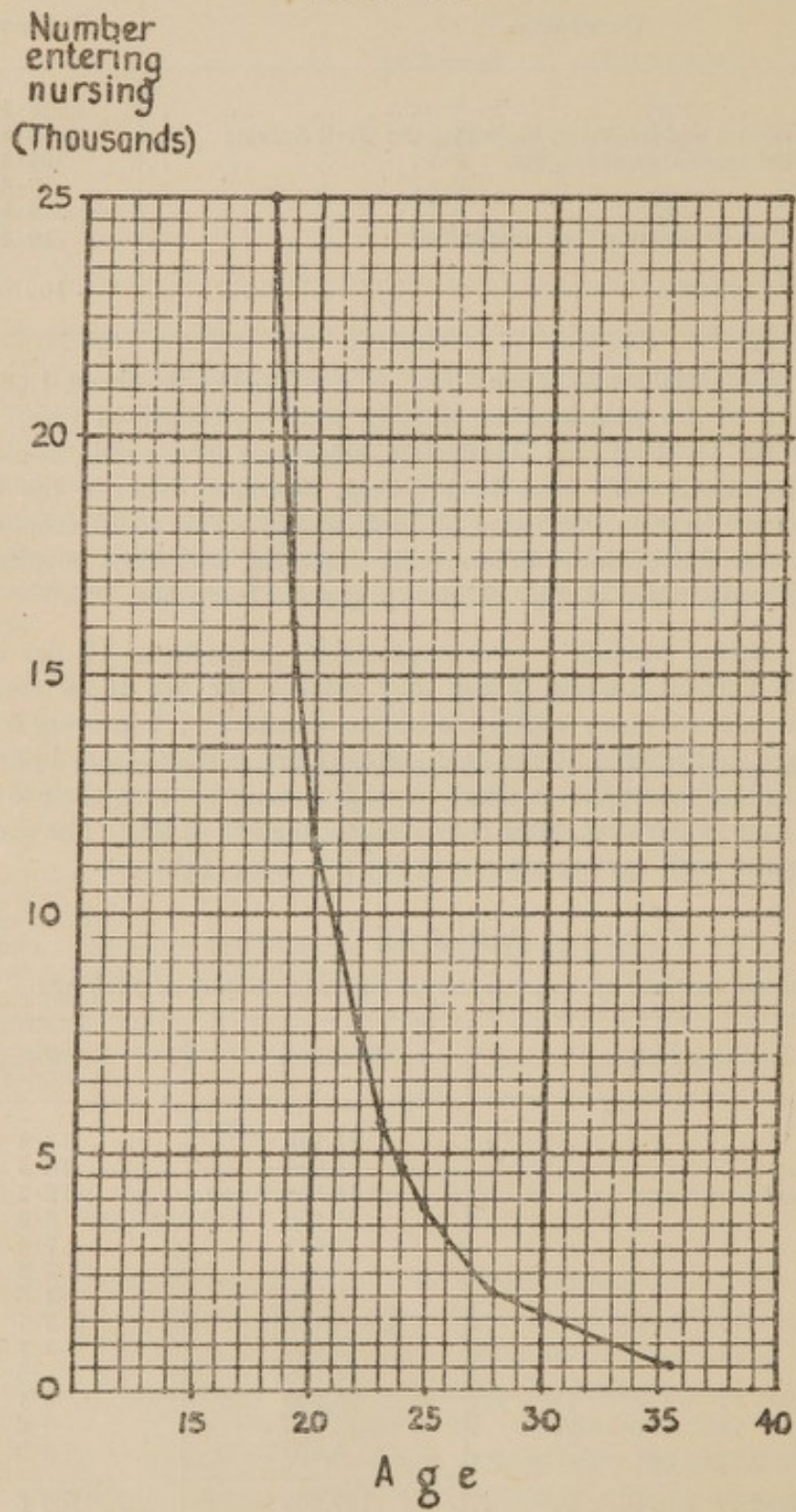
TABLE IX
Estimated numbers of hospital nurses entering nursing at each age

Age on Entering Nursing	Number	Percentage
Under 18	21,100	16.6
18	25,000	19.6
19	16,100	12.7
20	11,400	8.9
21	9,600	7.6
22	7,400	5.8
23	5,700	4.5
24	4,700	3.7
25	3,900	3.1
26-30	11,100	8.8
31-40	5,200	4.1
41 and over	700	0.6
Unspecified	5,300	4.2
TOTAL	127,200	100.0

* Including those who enter hospitals which are not approved training schools.

Fig. II

NUMBERS ENTERING NURSING AT
EACH AGE



42. It may be convenient at this point to consider what is the best age, if there is a *best* age, for entering nurse training. The answer to this question should ideally be based on facts showing at which ages candidates are likely to respond best to training and to become effective nurses. With the information now available it is impossible to deal with the problem in this way, but it may assist to give the arguments for and against entering nurse training at different ages.

43. One view is that girls should be encouraged to enter nursing when they reach the age of 18 years. In the past about 20 per cent. seem to have entered at this age, and this proportion is likely to increase. It is true that young persons are relatively immature at this age: they cannot have the wide experience of life which would make them better fitted to undertake responsible duties with patients who are seriously ill or to handle relatives of patients with the necessary tact. But in no profession are new entrants expected to have the "ripeness" only attainable after many years of experience, and we see no reason why nursing should be an exception. It is surely not reasonable to demand that a newly qualified nurse, at whatever age she qualifies, should have acquired the outlook and attitude found in a nurse of many years' standing. What we should rather seek is a candidate who, after qualifying, will profit from, and develop further through, experience she gains in the course of her duties.

44. A student nurse properly selected, who enters training at 18 and becomes qualified at 21 can, in the course of the next five years or so, acquire confidence and skill in dealing with the multiplicity of tasks which she will encounter. A person, however, who enters nurse training in the later twenties will already have lost perhaps 8 or 10 years which she might have devoted to nursing had she begun earlier. When she reaches the same age, therefore, her colleague who began at 18 may have some advantage. On the other hand the late entrant will have the counterbalancing advantage of wider general experience. However this may be, since almost 50 per cent. of the profession entered nursing before they reached the age of 20, we must regard these younger candidates as the main source of future supply. Taking all into account, it would seem that candidates should be accepted at the age of 18 years, though not younger, perhaps, but every encouragement should also be given to candidates of more mature years. Nor should any obstacle be put in the way of candidates who are married.

45. *Nursing qualifications.* About 57 per cent. of the nursing staffs of the hospitals in Great Britain are either students, pupils, assistant or other nurses without the qualifications enumerated in items 1 to 7 of Table X. Some 13 per cent. have qualified for the General Register only, and another 15 per cent. have other qualifications in addition to that of State Registered Nurse, some two-thirds of these being State Certified Midwives. Rather more than 2 per cent. are on one or more of the Supplementary Registers of the General Nursing Councils. 1 in 200 is a State Certified Midwife with or without a supplementary or other qualification, but without general registration.

46. On the whole there is little difference between England and Wales on the one hand and Scotland on the other in the proportions of nurses, in non-mental hospitals, with particular qualifications. In Scottish hospitals the proportion of "S.R.N. only" is 5 per cent. less than in England and Wales, but the proportion with at least one supplementary registration is 5 per cent. more. There also seems to be in Scottish hospitals a rather smaller proportion of trained nurses who are State Certified Midwives—about 10 per cent. as compared with 13 per cent. in England and Wales.

TABLE X

*Estimated distribution of qualifications of nursing staffs in the hospitals
and public health services of Great Britain*

Qualifications	Mental Hospitals	All Hospitals	Public Health
	Percentage	Percentage	Percentage
1. S.R.N. only	1.8	13.1	13.3
2. S.R.N. with Supplementary* or other qualification ..	3.3	4.4	7.3
3. One or more Supplementary* registrations only ..	1.5	2.4	1.6
4. S.R.N. and S.C.M.†	1.1	10.3	38.9
5. S.C.M. only or with Supplementary or other qualification	0.1	0.6	7.8
6. R.M.P.A. only	45.8	10.3	0.2
7. Tuberculosis or Orthopaedic Certificates	—	1.1‡	0.4
8. Students, pupils, assistant or other nurses	45.2	57.3	30.4
9. Unspecified	1.1	0.6	0.2
TOTAL	100.0	100.0	100.0

* The term "Supplementary" refers to registration on the Supplementary Registers of the General Nursing Councils.

† Including those who also have Supplementary or other qualifications.

‡ About three-quarters have the Tuberculosis Association Certificate.

47. In the public health field, apart from the proportion of "S.R.N. only"—13 per cent.—the distribution of qualifications, as might be expected, differs markedly from that in hospitals. The biggest single category in the public health field comprises district nurses and midwives and a large proportion of these are both State Registered Nurses and Certified Midwives. The proportion in public health who combine a general training in nursing with a training in midwifery is nearly 4 times as high as in the hospital field. A feature in the above Table which is of some interest is the proportion—30 per cent.—of unqualified nurses in the public health field; most of these are employed in industry or nurseries.

48. We estimate that at each level of nursing staff in hospitals there are the proportions shown in the Table which follows.

TABLE XI

Estimated percentage distribution of hospital nursing staffs according to status

Status	Percentage
Matrons and administrative staff	6.5
Ward and departmental sisters*	13.1
Staff Nurses	17.7
Student Nurses and pupil midwives	38.1
Assistant and other nurses†	24.6
TOTAL	100.0

* Including some 1,100 sister tutors and about 1,000 theatre sisters.

† Including nurses with certificates of nursing bodies other than the G.N.Cs., C.M.Bs., or the R.M.P.A.

CHAPTER IV

Intelligence of Nurses

49. In the two preceding chapters we were concerned with the size of the nursing profession, and with its qualitative structure in terms of age, educational background, professional qualifications and socio-economic status. We turn now to a particular qualitative aspect—the mental calibre of the nursing profession.

The level of intelligence or educability of the potential nurse is of decisive importance, both as regards her training and professional practice. A training programme on scientific lines is one which matches training requirements on the one hand, to the capacities of the trainees on the other. The aim is for the student to acquire that knowledge, skill and aptitude which will equip her for nursing duties. Since her intellectual capacity is an index of her ability to acquire this knowledge and skill, it follows that an accurate assessment of capacity is a necessary part of the procedure of selection for training. As regards the trained nurse, it is clear that her general intellectual competence will have a direct bearing on the efficiency with which she discharges her function which is to reduce the incidence and duration of sickness.

50. It is an accepted fact that there are considerable differences between individuals in their inborn mental capacity. The special value of intelligence tests is that they enable us to estimate this capacity fairly accurately in, say, an hour, a task which might otherwise take weeks, months, or even longer. Individual differences in capacity to respond to training are thus readily measurable by means of suitable tests.

The principles involved, and the corollaries, are accepted in civil and service life, wherever the need arises to select individuals for diverse courses of training, and a large body of evidence exists which shows that the use of intelligence and other mental tests can contribute appreciably to reduce the extent and cost of wastage during training. Recent experience in the armed forces, in the United Kingdom as in other countries, has amply confirmed the conclusions already reached in education and industry before the war, regarding the worth of mental tests in effective selection for training.

51. Wastage during training occurs not simply from demanding too much of the duller student, who gives up the unequal struggle when confronted with too difficult a task; it arises also from lack of appreciation of the gifts of the brighter student. As a recent U.S. Report* points out, the waste of some natural resources may be condoned in the hope that science will discover a substitute equally good. Intelligence is unique in this respect. No substitute can be found to replace it.

52. *Survey of nurses' intelligence.* With this background in mind, we have carried out a survey of the intelligence† of the nursing profession. The results set out in this chapter are based on tests administered to 2,400 hospital nurses, both male and female, including 697 trained nurses and midwives, 1,466 student nurses and pupil midwives, and 237 assistant and other nurses. Far more than 2,400 nurses were actually tested, but the results with which we are concerned were chosen so as to be representative of each grade of nurse in each type of hospital in each region. This group—some 2 per cent. of the total number

* *Science The Endless Frontier*, Dr. V. Bush. U.S. Govt. Printing Office. 1945.

† We employ the word "intelligence" in the psychologist's sense of an inborn factor determining all-round general ability.

employed in the hospitals of Great Britain—consisted of a random sample of nurses in each stratum who had completed the biographical questionnaire dealt with in Chapter III.

Two standard tests of intelligence were used, one non-verbal (Progressive Matrices, 20-minute version) and the other a verbal test devised for use in the Army*. These tests were selected because they had already been employed on a large scale in testing other groups, civilian and service. The results obtained in the present inquiry could thus be compared with intelligence levels in other occupations.

53. *Results.* An outstanding feature of the results obtained is the striking range of ability in the nursing profession in hospitals, as implied by the scores of the sample groups. The average ability of hospital nurses, including the untrained as well as the trained, is probably somewhat above that of the population as a whole. There are many more nurses in the upper ranges of ability as compared with corresponding proportions in the general population†, and fewer in the lower ranges. Some 16 per cent. of hospital female nurses are in the top tenth of the population as regards intelligence—14 per cent. in the case of trained nurses, 25 per cent. in the case of student nurses, and 4 per cent. in the case of assistant and other nurses. This is consistent with the presence of an appreciable number of nurses with a low level of ability. But there is good evidence to show that the matrix is more than twice as effective in predicting intelligence at the upper than at the lower end of the scale.

54. In the following Table we show the average score in the special sub-groups. The third column headed "standard deviation" indicates the variation in the scores. Thus, in the total sample the average score was 36·6 with a standard deviation of 9·5, which means that two-thirds of the sample fall within the range of scores 36·6—9·5 and 36·6+9·5, or between 27·1 and 46·1.

TABLE XII

Average scores on progressive matrices obtained by different groups of hospital nurses

Sample Group (a)	Number in Sample	Average	Standard Deviation
(i) Total female nurses in sample	2,110	36·64 (b)	9·47 (b)
(ii) Trained nurses	646	36·30	9·02
(iii) Student nurses and pupil midwives	1,279	40·19	8·15
(iv) Assistant and other nurses	185	31·25	9·58
(v) Nurses in mental hospitals	254	33·86	8·76
(vi) Male nurses	290	27·27	8·01

(a) The nurses in rows (ii) to (v) are females only.

(b) The average and standard deviation are weighted on the basis of the proportions of trained, student and assistant nurses in the hospital population.

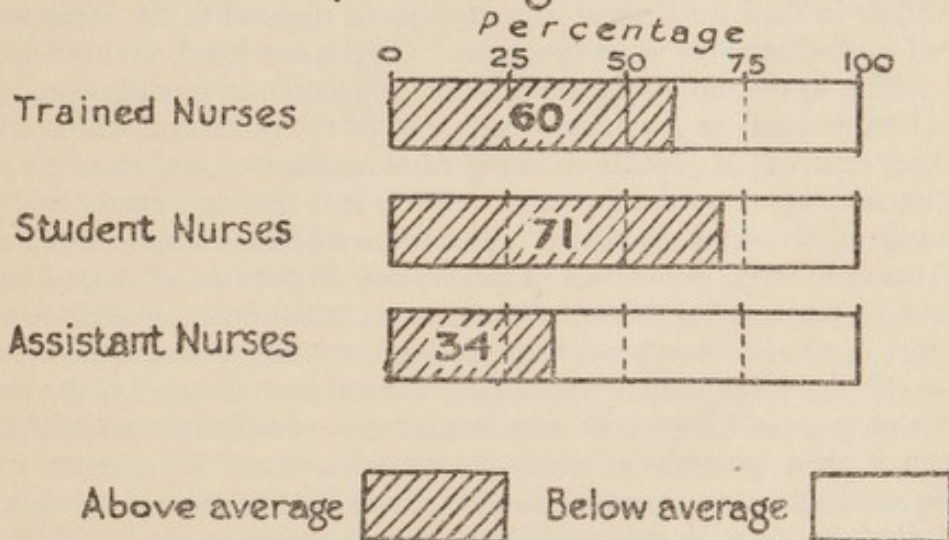
* We are indebted to the Director of Selection of Personnel at the War Office for permission to use the verbal test and for supplying the material. Unfortunately owing to pressure of time we have not been able to analyse the results of this test.

† The population norms are based on the standardisation of Matrix results employed by the Army. The mean Matrix score in a representative sample of 5,000 men in the Army is 34·4, with S.D. = 9·8; the mean score of a standard group of 3,759 seamen in the Royal Navy is 36·9, S.D. = 7·4. The estimated mean score of all hospital nurses is 36·6, S.D. = 9·5.

It is evident from this Table that there are appreciable differences in ability between the various grades of nurse. The average ability of the student body is superior to that of trained nurses*, possibly because the nursing profession is tending to attract abler candidates than hitherto, or it may be that the ablest student nurses abandon training before completing the course. (See Fig. III.) Since, however, it is known from studies of Services and other data that there is a decline in the Matrix scores of adult with increasing age, the difference between students and trained may be attributable solely to age differences. The average age of student nurses is estimated to be about 22 years, of trained nurses about 37 years and of assistant nurses about 31 years. Dr. P. E. Vernon estimates on the basis of his inquiries that there may be a decline of some 4 Matrix marks between the ages of 22 and 37 years. Hence, the difference between students and trained nurses observed may be entirely attributable to differences in age.

Fig. III

Diagram showing the estimated proportions of trained, student, and assistant nurses above and below the average intelligence of the population as measured by the Progressive Matrices Test.



55. The more detailed results are set out in the following Table. Each nurse's score on the test has been converted into a group letter—A, B, C, D or E. An "A" indicates that the score places the individual in the top 10 per cent. of the population, a "B" places him in the next 20 per cent., a "C" in the next 40 per cent., and so on. The groups have been so classified that, if any random sample of the general population were tested, the proportions falling into each group would be :—

Group	Percentage of Population			
A	10
B	20
C	40
D	20
E	10
Total	100

* The difference between the means is significant : $t = 9.5$, $p = < 0.001$.

TABLE XIII

Proportions of nurses in hospitals at different levels of intelligence*

Grade of Nurse	Intelligence Groups					Total
	A	B	C	D	E	
Trained Nurses and Midwives..	% 13·8	% 25·3	% 41·5	% 13·5	% 6·0	% 100·0
Student Nurses and Pupil Midwives	24·6	28·9	32·7	9·9	3·9	100·0
Assistant and other Nurses ..	4·2	16·0	32·5	24·5	22·8	100·0
TOTAL	15·8	24·5	35·9	14·7	9·1	100·0

* Including male nurses.

56. The extremely wide range of ability in the nursing profession in hospitals shows clearly that it is not to be regarded as a homogeneous group as far as suitability for the profession is concerned. It is inconceivable that persons differing so very widely in their intellectual capacity should respond to the same training or be fitted to discharge the same functions. On the one hand, we have some 40 per cent. falling in the top 30 per cent. of the population in intelligence; on the other, we have possibly as much as 24 per cent. of the profession who are in the lowest 30 per cent. of the population in regard to intelligence, and these are not all assistant nurses or pupil assistant nurses. While it is true that nearly half of the assistant and other untrained nurses (apart from students) appear to be in the lowest 30 per cent. of the population in ability, only 20 per cent. of trained hospital nurses, and 14 per cent. of student nurses, seem to fall into this relatively poor sector. But in *absolute* numbers there are more trained and student nurses in hospital at this low level of ability than there are assistant nurses. If the training scheme we propose in Chapter IX requires persons of at least average ability to profit from it then possibly as much as 30 per cent. of the present student population would seem to be unsuitable for admission to training. It should be borne in mind, however, as indicated above, that the efficiency of the Matrix test is much less at low score levels than at high score levels.

57. On the other hand, the data indicate that there are many assistant (and other untrained) nurses with an intellectual capacity in no way inferior to that of the best student or trained nurses. At least 1 in every 5 assistant nurses in hospital—possibly about 6,000 in all—is in the top 30 per cent. of the population in intelligence, and another 1 in 7 is above the average.

58. *Mental as compared with non-mental hospitals.* The nursing staffs of the non-mental hospitals tend to have a higher level of ability than those in the mental hospitals and institutions. The proportion of non-mental trained and student nurses in Group A is three times as high as the corresponding proportion in mental hospitals. At the lower end of the scale of intelligence, the proportion of mental nurses in Group E is five times as high as the corresponding proportion of non-mental nurses; so we must conclude that the mental hospitals and institutions, as at present constituted, fail to attract a sufficient proportion of abler recruits.

59. *Comparative ability of nursing staffs of different types of hospital.* The distribution of ability varies from one type of hospital to another in the following order :—

Voluntary General.
Municipal General.
Maternity.
Fever.
T.B.
Mental.

The estimated proportions of nurses at the various levels is shown in the following Table.

TABLE XIV

Type of Hospital	Intelligence Groups					Total
	A	B	C	D	E	
General—						
Voluntary	26.5	31.0	33.0	7.2	2.2	100.0
Municipal	19.2	27.9	33.9	14.6	4.4	100.0
Maternity	17.2	29.3	43.1	10.3	—	100.0
Infectious Diseases	10.7	24.4	39.7	13.7	11.5	100.0
Tuberculosis Sanatoria	13.7	19.2	31.5	24.7	11.0	100.0
Mental	7.1	16.3	42.4	21.4	12.8	100.0

60. *Capacity for Nurse Training at the University Level.* The question has often been raised of developing basic training for nurses at the university level. We consider that a case would first need to be established that university trained nurses could perform a function demonstrably superior to that of nurses without university training, either directly by improved techniques or indirectly by the teaching of those techniques. We cannot judge only by the demand for university trained nurses, or by the demand by nurses for university training. All we can at present say with any confidence is that there is an *a priori* likelihood of some nurses with training at the university level being able to serve a useful purpose. Efforts should be made to experiment with courses of this type with a view to producing better leaders and teachers of high professional standing.

There is undoubtedly a reserve of high ability both in the trained and student population. On the basis of the test results, we may say that at least 1 in 4 of student nurses is capable of profiting from a university education, some 25 per cent. having a Matrix score of 46* or more. If we took student nurses with an *average* score of 46, a higher proportion than 25 per cent. would be capable of profiting from a university education. Judging by the same criterion, probably some 20 to 25 per cent. of trained hospital nurses would be capable of profiting from courses at the university level.

61. So far we have been considering those with the necessary capacity but they may not have the proper educational background. We can, however,

* In a representative sample of the Army it was found that 46.7 was the average score on the same test obtained by men with a university education. For additional evidence see the memorandum on "Capacity and Opportunity for University Education" a study carried out by Dr. G. Leybourne-White at the University of Manchester.

go further and estimate, with some degree of accuracy, the proportion of nurses who have the necessary intellectual capacity and have also reached the education level of matriculation or above. In the sample tested there were 793 nurses with an average score of 46·8 on the Matrix test and 377 of these, *i.e.*, 48 per cent. were of matriculation level or above. We may infer, then, that among hospital nurses as a whole, between 10 and 15 per cent., of whom more than two-thirds are probably students, have both the capacity and the educational background necessary for university studies.

62. From the results of this survey* of the intelligence of nurses we may draw the following conclusions :—

- (i) The very wide range of ability among nurses shows that the profession is far from being homogeneous in quality. No uniform and satisfactory training course can be given to candidates of the widely diverse levels of ability found among student nurses.
- (ii) If training requirements are to be properly met, the selection of candidates must have regard to their ability to meet these requirements. This end can best be achieved by employing standard tests of intelligence in conjunction with other selection techniques.
- (iii) Candidates for nurse training who, though suitable on personality and other grounds, are below the level of ability required to complete the course successfully should be encouraged to accept employment in a capacity ancillary to nursing.

CHAPTER V

Estimated Intake and Loss of Trained Nurses

63. We found in Chapter II that the total trained nursing force in Great Britain, including those in the Armed Forces, had risen by some 8,000 during the 7 years 1939—1945—an increase in the profession of about 1,000 on the average, each year. By itself, this information is inadequate : it gives us no idea of the length of the working life of a nurse, nor does it tell us the extent of the movement to and from the profession, which must be known before it is possible to estimate the number of students to admit each year to replace, on completion of training, the normal loss from the profession.

Here, as elsewhere in our inquiries, there was a dearth of factual material, and we took steps, therefore, to collect some of the necessary information, confining ourselves, owing to limitations of time and resources, to the hospital field. Only a rough estimate, based on the mobility of hospital staffs, can be made of the annual loss to the profession of trained nurses working outside hospitals.

64. In the time available to us it would have been an impossible task to make a complete census of all hospitals in Great Britain in order to obtain relevant particulars of all trained nurses employed in them. This, however, was not

* See also Appendix II—Percentile Norms for the Progressive Matrices Test.

necessary, since by sampling the field, provided the sample is representative, information sufficiently accurate can be collected for the hospital profession as a whole.

Fortunately, the Hospital Surveys for each Region published in 1945 provided the basic material which permitted a representative sample of hospitals to be chosen. There were two limitations: first, the details in the Surveys related to the year 1938 and, second, they did not cover the mental field.

65. Accordingly, a sample of hospitals in Great Britain was chosen from the Surveys by the method of "stratified sampling". The sampling units *i.e.*, the hospitals, were divided into groups, by region and type. From each of these groups a proportion was taken at random so as to provide a 5 per cent. sample of the total staffing strength in the group in 1938. Each group or stratum of hospitals, *e.g.*, voluntary general in the London Region, was a fairly homogeneous group, represented in the sample in the same ratio as in the total population.

The number chosen was sufficient to provide a 5 per cent. sample of nursing staffs of the non-mental hospitals in 1938. 161 hospitals of all types from all parts of the country were thus taken, voluntary and municipal, teaching, training, non-training, including tuberculosis sanatoria, infectious diseases and maternity hospitals.

66. We could not, of course, assume that the sample of 5 per cent. in 1938 would remain 5 per cent. in 1946. Many changes had taken place in the hospitals: some had grown, others had been reduced in size; some had closed down. In a few cases, non-training schools had become approved training schools. The sample numbers obtained for 1938 were therefore adjusted appropriately in the light of the figures independently supplied for hospital staffs as at the end of 1945. The resulting figures of 5 per cent. in 1946 were confirmed by comparison with figures of hospital nursing strength shown in current Ministry of Health returns. As many nurses as possible in the sample hospitals were given one or more tests.

67. As there were no Surveys for the mental hospitals we had to make our own "survey" of this field in order to secure a basis for sampling. Having done this, the subsequent procedure was similar to that employed in the case of the non-mental hospitals. 23 mental hospitals and institutions were chosen at random from sources giving the total number of mental hospitals and institutions in Great Britain.

68. A specially devised questionnaire was circulated to these 184* hospitals, divided as shown in the Table below.

TABLE XV
Number and type of hospitals in the sample

Type of Hospital	Training	Non-Training
	Number	Number
General—		
Voluntary	33	20
Municipal	18	16
Mental	20	3
Maternity	14	7
Infectious Diseases	16	13
Tuberculosis Sanatoria	8	14
TOTAL	109	73

* Two hospitals did not return the questionnaire.

This questionnaire was designed to elicit information under the following headings :—

INTAKE INTO EMPLOYMENT

1. Entering first employment after registration :—
 - (a) trained within the institution.
 - (b) trained elsewhere.
2. Entering from other nursing employment.

OUTFLOW FROM EMPLOYMENT

3. Marriage.
4. Sickness.
5. Death.
6. Retirement.
7. Resignation.
8. Discharge.
9. Other reasons.
10. Transfer to other nursing employment.

69. *New intake of trained nurses.* We estimate that the number of qualified* nurses entering first employment in all hospitals each year between 1937 and 1945 was rather less than 10,000. This estimate is consistent with the annual number of successful candidates in the State General and Supplementary examinations of the General Nursing Councils; the examinations of the Royal Medico-Psychological Association and those of the Central Midwives Boards. The relevant figures for the General Nursing Councils and the Royal Medico-Psychological Association are shown in the Table below.

TABLE XVI
Number of nurses qualifying each year
1939–1945

Year	Examinations of :		Total
	General Nursing Councils	Royal Medico-Psychological Association	
	Thousands	Thousands	Thousands
1939	8.0	1.4	9.4
1940	8.2	1.2	9.4
1941	7.6	1.2	8.8
1942	8.0	1.1	9.1
1943	8.8	0.8	9.6
1944	8.7	0.8	9.5
1945	9.7	0.7	10.4
AVERAGE ..	8.4	0.9	9.3

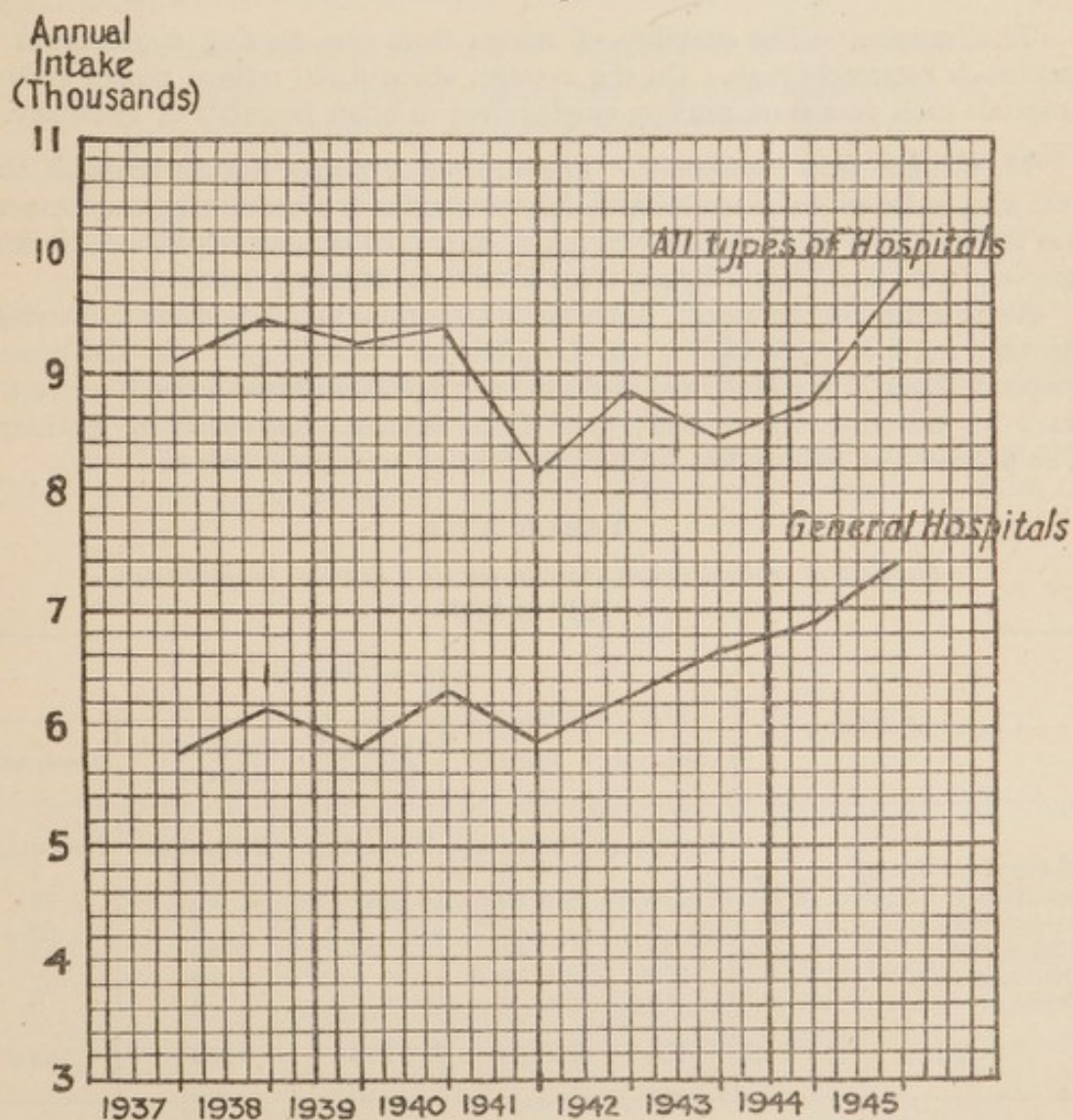
70. In addition to the 9.3 thousand shown in the last row of the above Table, there are some 300 non-State Registered Nurses included in our estimate of intake. The average number of successful candidates for Part I Midwifery was

* As defined in Table II, footnote *, i.e., nurses who have passed the Final Examinations for the General or Supplementary Registers of the General Nursing Councils, State Certified Midwives and those with the certificate of the Royal Medico-Psychological Association.

about 2,300 in the years 1940-5, and about 1,300 were successful in Part II of the course. But about 90 per cent. of these were State Registered Nurses and are, therefore, included in the figures for the General Nursing Councils shown in the Table. The total number of persons passing the examinations of the General Nursing Councils, Royal Medico-Psychological Association and Central Midwives Boards thus approximates very closely to the number of nurses and midwives entering hospital employment for the first time as estimated from the results of our questionnaire. Only a small proportion of the newly qualified nurses enter their first employment in a non-hospital field.

Fig. IV

ESTIMATED INTAKE OF TRAINED NURSES
TO (a) General Hospitals and
(b) All types of Hospitals,
excluding Maternity.



71. *Intake trends between 1937 and 1945.* The estimated new intake of trained nurses to general hospitals remained fairly steady until 1941 at about 6,000 a year. From 1942 onwards a steady increase is apparent, the intake rising from about 5.9 thousand in 1941 to about 7.5 thousand in 1945. (See Fig. IV).

Intake to maternity hospitals appeared to be increasing markedly between 1937 and 1939, but in 1940 there seems to have been a decided fall, probably due to the demands of the Services on new graduates. The position improved somewhat between 1941 and 1943; in 1944 the intake was apparently at the 1937 level of some 800 per annum. A very low level of intake appears to have been reached in 1945.

In the mental hospitals and institutions the estimated number of trained nurses entering first employment declined steadily, due to war-time conditions, from about 2,500 in 1938 to about 800 in 1944, rising again to some 1,300 in 1945.

Intake of trained nurses to infectious diseases hospitals apparently remained fairly steady during the period under consideration at about 700 a year. The 1945 intake seems to show a drop of some 150 as compared with the intake of the preceding year.

In the case of the tuberculosis sanatoria, intake of trained nurses during the period appears to have varied between 200 and 300 a year, rising to some 400 in 1945.

72. *Transfers.* The mobility of nurses from one nursing appointment to another is extremely high. On the average, about 6,300 trained nurses entered hospitals each year from nursing employment in other hospitals or elsewhere.

73. *Outflow from employment.* The number of nurses leaving hospitals each year who, so far as can be ascertained, did not transfer to other nursing employment, was about 5,600 a year. Those who left to enter civil nursing employment outside hospitals were about 3,000 a year, apart from those entering the Services.

About a third of the wastage of trained nurses from hospitals is due to marriage. Another third is recorded by the hospitals as "resigning". In the general hospitals about 17 per cent., and in the other hospitals between 5 and 10 per cent., leave for miscellaneous reasons, apart from sickness, retirement or discharge. The proportions leaving for the various reasons are shown below.

TABLE XVII
*Outflow of trained nurses from hospitals : average proportions :
1937 to 1945*

Causes of Outflow	Type of Hospital				
	General	Mental*	Infectious Diseases	Tuberculosis Sanatoria	Maternity
	Percentage	Percentage	Percentage	Percentage	Percentage
Sickness (or death)	9	5	6	15	9
Marriage	35	38	27	36	46
Retirement	2	3	2	3	—
Resignation	35	44	56	27	36
Discharge	2	3	4	9	—
Other	17	6	5	9	9
TOTAL	100	100	100	100	100

* Female nurses only.

74. The estimates given above of intake and outflow of trained nurses appear to be also in close agreement with the figures of nursing strength as estimated in Table II (Chapter II). In the 7-year period 1939-1945 the loss to the nursing profession from hospitals was probably about 40,000, and from public health and other fields about 21,000. Hence the *total* loss to the profession during the period under review was about 61,000. If these estimates are sound, then, since the total intake was about 69,000, the net increase to the profession must have been about 8,000. This is, in fact, the figure which may be calculated from Table II. Most of this increase was, at the end of 1945, still absorbed by the Services. Thus the estimated figures of intake and outflow computed from the results of our questionnaire are consistent with the independent estimates of nursing strength set out in Table II.

75. The wastage rate* of trained nurses from hospitals was thus about 11 or 12 per cent. The annual loss from the trained profession as a whole was possibly nearer 10 per cent. We may therefore infer that the *average* working life of a trained nurse employed in hospitals until she leaves the profession is perhaps not more than 9 years rising to 10 years if we include trained nurses outside hospitals.

If these rates of wastage from the profession cannot be appreciably reduced so as to prolong the working life, the replacement rate must be at least about 9,000 a year before any expansion can be considered.

76. The main results of this analysis may now be briefly summarised:—

- (i) The number of trained nurses entering first employment in hospital each year is probably between 9,500 and 10,000.
- (ii) About 6,300 trained nurses each year transfer to hospitals from nursing employment in other hospitals or elsewhere.
- (iii) The average number of trained nurses in the hospital field leaving the profession each year is estimated to be about 5,600; another 3,000 are estimated to leave the profession from the public health and other fields.
- (iv) Rather more than a third of the loss from hospitals is due to marriage. Sickness accounts for about 9 per cent. of the loss from general hospitals and for 5 to 15 per cent. in other hospitals.
- (v) The annual replacement rate of trained nurses must be at least about 9,000 a year before any expansion in the size of the profession can take place.

CHAPTER VI

Estimated Intake and Wastage of Student Nurses

77. The number of student nurses who withdraw from training before completing the course has long been a subject of speculation. No less uncertainty has surrounded the question how many new students enter training each year. Although various "estimates" have been in circulation in the literature of nursing it is difficult to know how much confidence to repose in them, yet in the absence

* *i.e.*, Outflow as a proportion of average strength.

of reliable figures of student intake and wastage no planning is possible. A questionnaire was accordingly circulated to a random sample of 92 training schools representing about 11 per cent. of the total number of training schools (including mental and tuberculosis) in Great Britain.

78. This questionnaire, which was returned in 90 cases, was designed to elicit the following information for the period 1937-1945 :—

Intake.

Numbers leaving first year—

(a) before entering wards.

(b) after entering wards.

Numbers leaving second year.

Numbers leaving third year.

Causes of wastage : Numbers leaving because of—

Sickness (on medical certificate) or death.

Marriage.

Failure in examinations.

Discharge by hospital.

Resignation.

Other causes.

Number completing training.

79. The questionnaires were in nearly all cases completed on the "follow-through" principle, the students entering each year 1937 to 1945 being "followed through" individually so as to ascertain the numbers withdrawing at each stage of training, and the grounds for the withdrawal as recorded by the hospital authorities. We are concerned for the moment only to set out the figures as estimated on the basis of this inquiry : with the causes of wastage we deal more fully in the chapter that follows.

80. *General training hospitals.* The average annual intake of students into general training hospitals in Great Britain between 1937 and 1945 may be estimated at about 13,300, increasing from about 11,800 in 1937 to about 14,100 in 1945. A peak was reached in 1943 when about 15,400 student nurses were probably accepted for training. Over the whole period the average yearly intake of the voluntary hospitals may be put at about 9,200 and of the municipal hospitals at about 4,100. The detailed figures for each year 1937 to 1945, distinguishing voluntary and municipal hospitals, are shown in Appendix III.

81. It appears likely that there was an average loss of about 4,900, or 38 per cent., from each annual intake over the 7-year period 1937 to 1943. In the voluntary hospitals the loss was about 3,100, or 35 per cent. of the annual intake ; in the municipal hospitals the loss was about 1,800, or 43 per cent. It would be misleading to include the years 1944 and 1945 because the intake of those years had not completed training when the figures were compiled. By the middle of 1946, however, 38 per cent. of the 1944 intake and 32 per cent of the 1945 intake may be assumed already to have been lost, so there is no reason to suppose that the rate of wastage is declining. The 1942 intake suffered the lowest wastage—36 per cent.—and the 1939 intake the highest—41 per cent. On the whole, the wastage of students from the general training schools seems to have remained fairly steady since 1940 at about 36 or 37 per cent.

There is appreciable variation in the wastage rates of different hospitals. Wastage in the sample of voluntary hospitals ranged from 22 to 57 per cent., and in the municipal hospitals even more, from 25 to 65 per cent.

82. The preceding figures of intake and wastage do not necessarily relate to the number of individual persons since nurses leaving one training hospital may, in some cases, enter another. On the basis of following up the later careers of a sample of ex-student nurses, it seems reasonable to assume that about 7 per cent. of those who leave one general training hospital continue their general training elsewhere. The average annual *net* wastage in all general training hospitals from 1937 to 1943 may therefore be put at about 4,500. In consequence, the estimated average annual intake 1937 to 1945 of about 13,300 students for general training is a "gross" figure, which includes a small proportion of nurses who are counted twice because they entered a second training school after leaving the first. The true figure of intake is likely to be some 3 or 4 per cent. less than the gross figure, *i.e.*, about 12,800, and the "net" wastage of student nurses in general training may be estimated at about 36.0 per cent. of intake. Failures in the final state examinations are not included in the estimates of wastage and this applies similarly to wastage in other training fields discussed below.

83. More than 3 out of every 5 students who abandon their training do so in the first year of the course. The actual proportions leaving in each year of training are shown in Table D, Appendix III. As in the earlier calculations, figures for 1944 and 1945 have been omitted. As regards the proportion of intake failing to complete training during the years 1937 to 1943, about 23 per cent. were lost in the first year of training, 7 per cent. in the second year, and 6 per cent. in the third. As far as the first year of training is concerned, the position seems to be deteriorating, for 28 per cent. of the 1944 intake and 29 per cent. of the 1945 intake were lost in the first year.

84. *Mental hospitals and institutions.* The mental field presents a picture of almost unmitigated gloom. The average annual intake of female student nurses into mental hospitals and institutions between 1937 and 1943 is estimated as about 6,800, declining from about 9,700 in 1938 to about 3,800 in 1943. In 1944 and 1945 the intake declined still further to about 2,700 per annum. Intake of male students shrank from about 1,600 in 1939 to about 200 in 1943, increasing to about 500 in 1945. It is true that the mental hospitals suffered a great deal of dislocation as a result of the war due to evacuation of patients and overcrowding, while the armed forces no doubt attracted a good many who might otherwise have entered mental training.

85. Between September, 1939, and July, 1940, about 2,000 male mental nurses entered one or other form of war service; about 500 female mental nurses went to other nursing work or joined the women's auxiliary services during the same period. During the war the tendency of women to enter general rather than mental nursing was accentuated, and male mental nurses could only be recruited from men outside military age or unfit for military service. Although we may grant that during the war the wastage of mental nurses was abnormally high owing to the acceptance of unsuitable student material, nevertheless the magnitude of the wastage during training cannot wholly be explained in this way. The average rate of wastage of female students in the 7 years 1937 to 1943 may be estimated at 82 per cent. of annual intake, and of male students at some 80 per cent.

86. *Infectious diseases hospitals and tuberculosis sanatoria**. Between 1937 and 1945 the average annual intake of students to fever hospitals would appear to have been about 1,700 and to sanatoria about 1,400. In both cases, as with the general training schools, intake seems to have reached its peak in 1943 and thereafter some decline set in. It is estimated that there were 1,300 new students in fever hospitals in 1945 as compared with 2,300 in 1943; the corresponding figures for sanatoria being 1,000 and 1,800. In 1945 the intake to both kinds of hospital was the lowest in the entire period and in both instances was some 24 per cent. less than the average yearly intake in the 9-year period.

During the seven years 1937 to 1943 the annual student intake of fever hospitals suffered an average loss of more than 1,000, or 56 per cent.; the annual student intake of sanatoria suffered a loss of some 900, or 64 per cent. In both cases wastage was much higher than in general training schools. About 67 per cent. of those who left fever training, and 79 per cent. of those who left tuberculosis training, "wasted" in the first year of training.

87. *Summary of estimated intake and wastage in all fields*. The estimated intake of student nurses to all types of hospital, other than maternity, is summarised in Table XVIII which follows. Over the seven years 1937 to 1943 the annual intake was roughly about 23,000 of whom about 12,400 (54 per cent.) were lost during training†. To the problem thus presented we turn in the next chapter.

TABLE XVIII

Summary of estimated intake and wastage of student nurses 1937 to 1943

Type of Training	Average Annual Intake	Average Wastage	Wastage as a Percentage of Intake
General—			
Voluntary	8,900	3,100	35
Municipal	4,200	1,800	43
Total	13,100	4,900	37
Mental (Females only)	6,800	5,600	82
Infectious Diseases	1,800	1,000	56
Tuberculosis Sanatoria	1,400	900	65
TOTAL	23,100	12,400	54

Figures illustrating the trends of student intake and wastage follow.

* Although students preparing for the Tuberculosis Association Certificate only are not approved students for the purposes of the General Nursing Councils, we have felt it advisable, having regard to the importance of this field, to include them in this section. The estimated figures of intake are given with some reserve in view of the difficulty of distinguishing those students preparing for the Tuberculosis Association Certificate from those pursuing courses under an affiliation scheme of the General Nursing Councils.

† The report of *The Lancet* Commission (1932) estimated that 33 per cent. of the intake to hospitals of student nurses or probationers was lost every year. The basis of this estimate is not wholly clear. We are satisfied that at present the wastage over all hospitals is appreciably higher.

Fig V

INTAKE AND WASTAGE OF STUDENT NURSES
IN GENERAL TRAINING HOSPITALS
IN GREAT BRITAIN
1937 - 1945

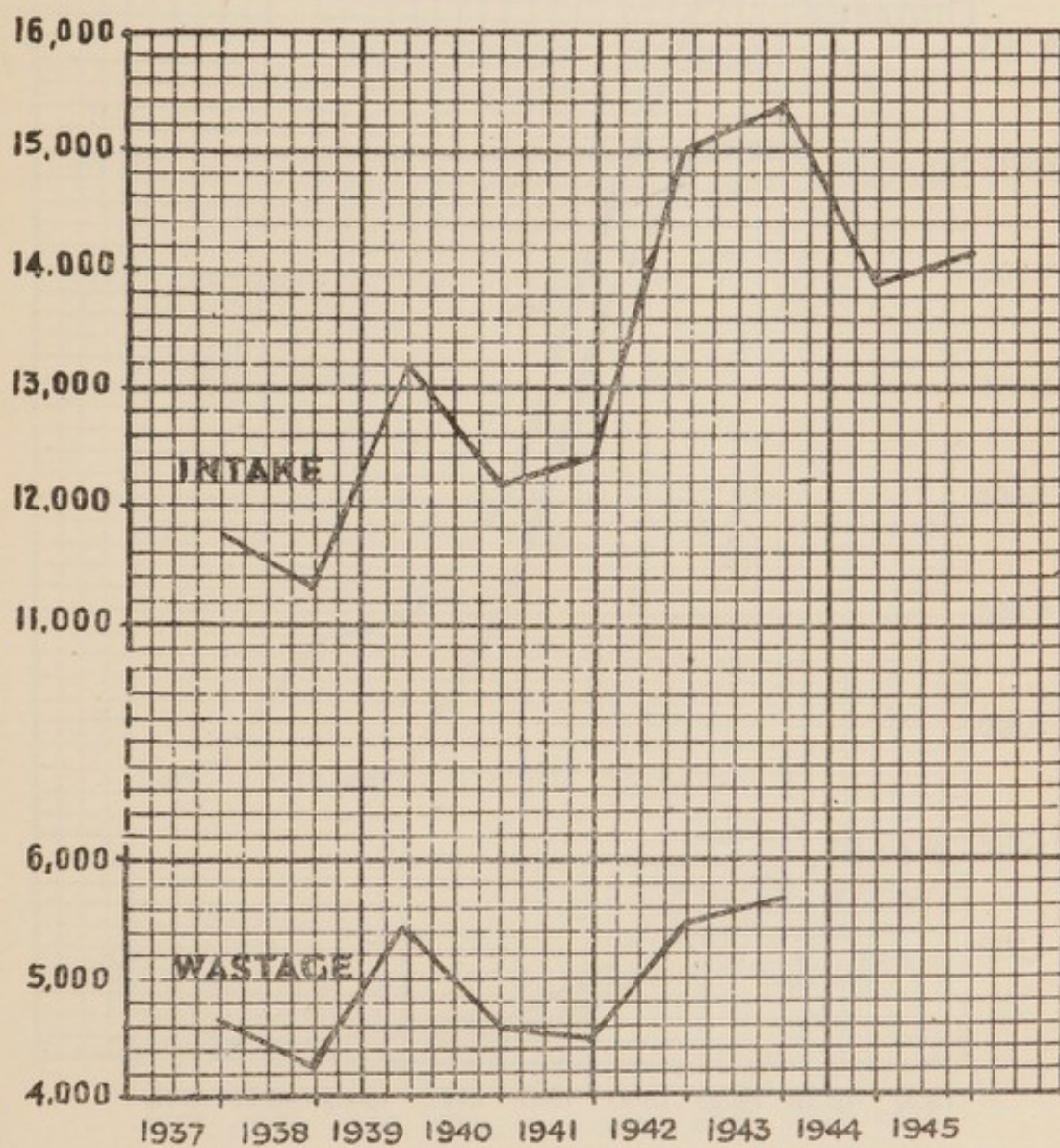


Fig VI

ESTIMATED INTAKE AND WASTAGE OF STUDENT
NURSES IN MENTAL HOSPITALS & INSTITUTIONS
IN GREAT BRITAIN
1937 - 1945

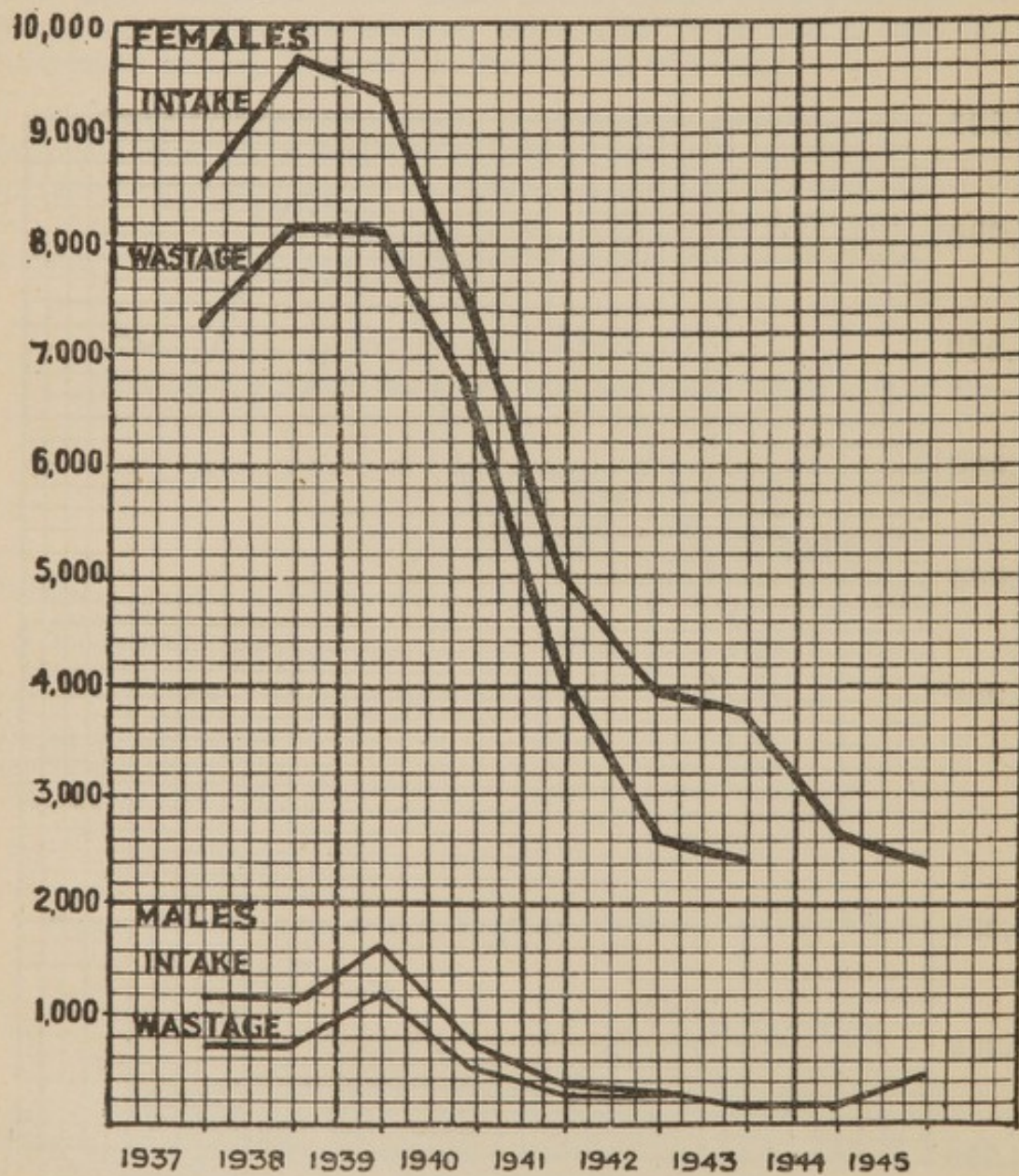
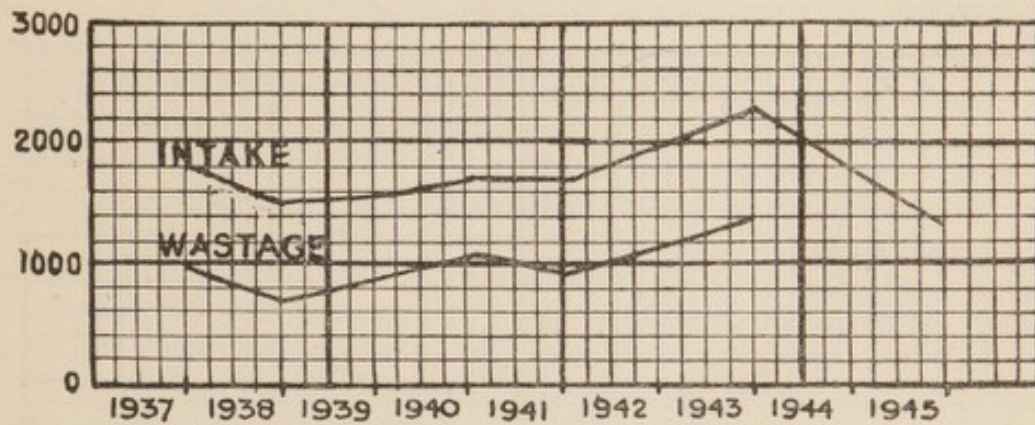


Fig VII

ESTIMATED INTAKE AND WASTAGE OF STUDENT
NURSES IN INFECTIOUS DISEASES HOSPITALS &
TUBERCULOSIS SANATORIA IN GREAT BRITAIN.

1937 - 1945

INFECTIOUS DISEASES
HOSPITALS



TUBERCULOSIS SANATORIA

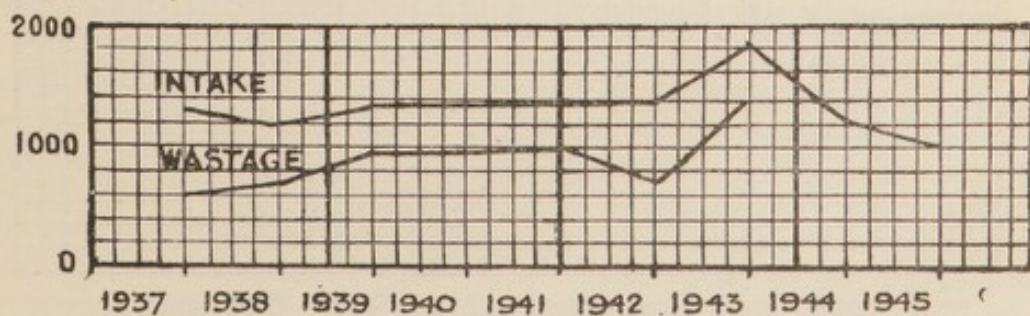
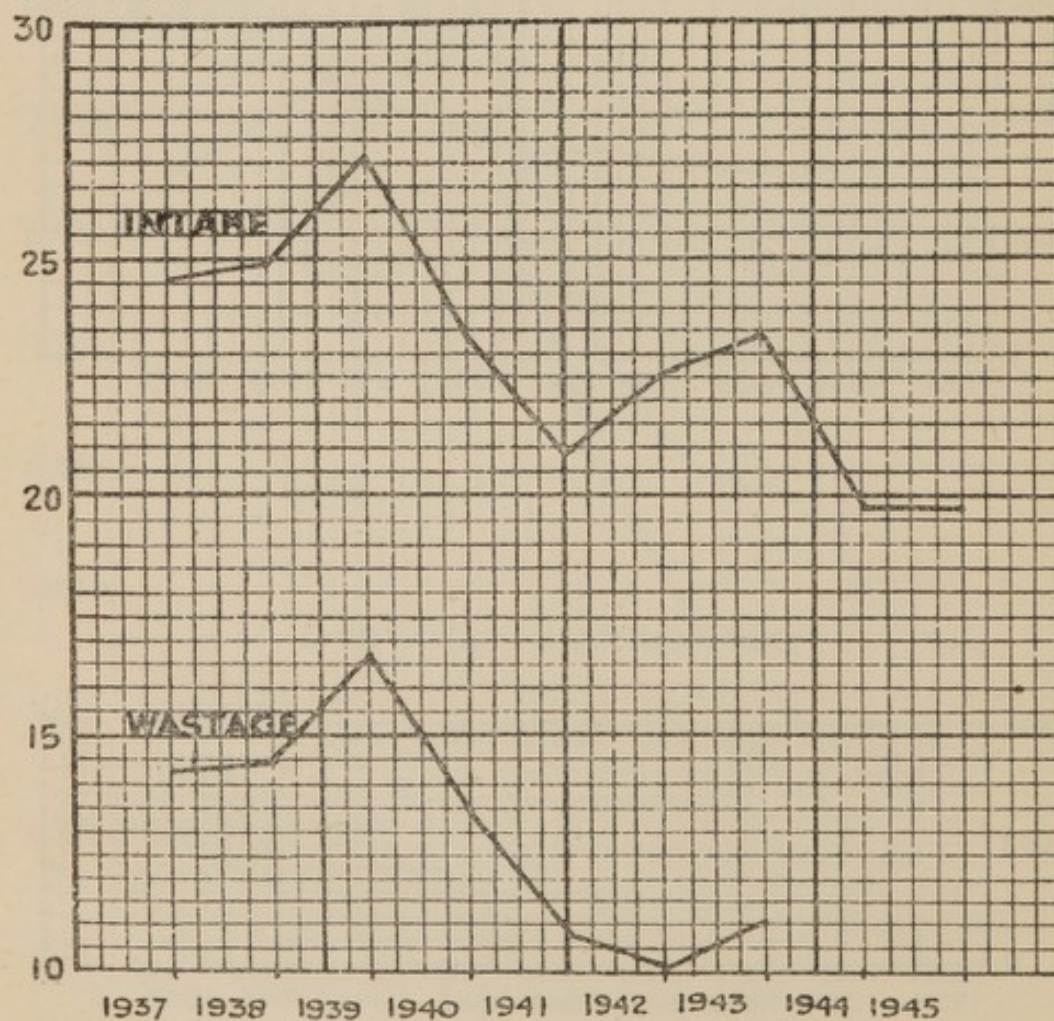


Fig VIII

ESTIMATED INTAKE AND WASTAGE OF STUDENT
NURSES IN ALL TRAINING HOSPITALS IN
GREAT BRITAIN
1937 — 1945

Number of
Students
(Thousands)



CHAPTER VII

Wastage During Training

88. The starting point of our inquiry may be said to lie in the problem of wastage during training. It is here that the present system primarily breaks down. It is here that many of the other problems converge, and it is in the solution to the wastage problem that the solution will be found to many of the other problems. Certainly before we can talk of any expansion of the nursing services we must first ensure their stability at a certain level, and this means solving the problem of wastage during training.

The nursing world is passing through a staffing crisis. Wards are being closed at the same time as the demand for hospital beds is increasing. In the Surrey County Council hospitals, for example, there were in August, 1946, 2,184 occupied beds and a waiting list of 2,799, apart from 1,799 maternity bookings. The position is particularly grave in the mental hospitals and tuberculosis sanatoria.

89. The present situation is the result of the cumulative effect of many factors which have been operating over a long period of years. Spontaneous letters addressed to the Ministry of Health by nurses and ex-nurses throw some light on hospital conditions from the point of view of the nurse. The sceptical person may be inclined to dismiss these as the exaggerated complaints of disgruntled individuals. But the material submitted to us by an unselected sample of nurses of all grades in hospitals of all kinds in every part of the country cannot be dismissed in this way. In addition, we have much evidence from personal interviews with numbers of nurses and ex-student nurses. While some part of this wastage is undoubtedly due to the admission of candidates who lack the ability or the temperament to pursue the training successfully, the exceptionally high rate of wastage among student nurses very definitely suggests that they are expected to work and train under conditions which even many of those suitably equipped are not prepared to tolerate. Out of every hundred student nurses that enter training not more than 50 remain at the end of the training period, and in many hospitals not more than about 30 remain.

90. Before we turn to a study of the results of our inquiry on this point, it may be helpful to record briefly the impression left by the investigation as a whole, involving, as it did, visits to over two hundred unselected hospitals in different parts of Great Britain; interviews with hundreds of unselected nurses, student nurses and ex-student nurses, and a statistical analysis of hundreds of statements received from unselected ex-students from all parts of the country.

91. Any impartial investigator entering many nurse training schools encounters an atmosphere of dissatisfaction or even discontent. Generally speaking, there is a considerable sense of frustration, and discipline is felt to be harsh and cramping and quite out of accord with modern notions of personal freedom. We are not referring so much to disciplinary requirements in periods of duty, but more to the restraints imposed upon a nurse's freedom in her personal life when she is not on duty. The very contract most student nurses are compelled to sign at the outset of their training, with all its vague but ominous legal implications, must prejudice them against their future career. The term "abscond", which some hospitals use to describe a nurse's sudden departure, is consistent with the spirit of the contract.

The impression is sometimes left that senior members of staff are not really aware of, or fail fully to appreciate, the outlook of the younger generation. An

interview first with the medical superintendent or matron or with ward sisters—followed up by confidential interviews with student nurses generally leaves the investigator with two contrasting pictures of hospital life as far as the students are concerned.

92. The opinion studies which we have made of student nurses who are still in training, as well as of qualified nurses, suggest strongly that the difference in attitude between a nurse who gives up training and one who does not is a difference in degree not in kind. Under the present system, a point is reached during the training period when many students "waste". They are not necessarily altogether different in kind from their fellow-students who remain. Many of those who stay on, if what they say is true, would almost certainly leave were it not for the direct or indirect pressure exerted on them by their parents or their own sense of vocation. In many cases they would leave not because they dislike nursing but because the conditions of training are to them all but intolerable. Similarly many, perhaps most, of those who leave do not do so necessarily because they dislike nursing, but because they have reached breaking point. In other words, the "wasters" and "non-wasters" are, generally speaking, a homogeneous group so far as their general attitude to nursing life and training is concerned.

93. To avoid misunderstanding one point must be made clear at this stage. We do not propose for a moment to try to explain the difficulties that arise during training by apportioning blame to individuals: to do so would throw no light on the causal factors at work. What we shall attempt to do is to analyse the causes objectively as they operate within the hospitals as institutions, and then deduce what steps need to be taken to remove them.

94. Our first step in the inquiry was to interview as a group a small number of ex-student nurses selected at random. They were all nurses who had very recently abandoned training. The aim of these interviews was to make a "pilot" study of some of the chief factors which appeared to determine wastage during training.

It became clear during the course of the interviews that the crux of the whole problem of wastage seemed to lie in the sphere of human relationships.

A common complaint was the lack of help, co-operation, encouragement or sympathy from senior staff who were said to begrudge the new-comer opportunities for better training and greater freedom. "I went through it, so should you" was the unwritten formula. The nurses alleged that, in some instances, there was undue interference with their personal affairs, extending to their correspondence and their comings and goings when off duty. There was often an assumption of infallibility on the part of seniors when differences arose with student nurses. Many were described as "narrow-minded", "old-fashioned", "sour" and "bad-tempered". They might humiliate students in the presence of colleagues or patients and, in other respects "make the student's life a misery". Several were described as "hard-hearted" and "inhuman", often unreasonably refusing simple requests, and without explanation.

Most of the nurses resented having to spend so much of their time in duties such as cleaning which by no stretch of the term could be called nursing. They all agreed that there was a tendency to treat them as inferior and irresponsible. Petty restrictions were imposed against which they rebelled. Students would be blamed for not knowing what they had not yet been taught. One effect of such a restrictive atmosphere was to breed evasiveness and dishonesty.

There were complaints about the difficulty of preserving "individuality" and of cultivating personal or outside interests. Many a nurse is drawn suddenly from a home-life, where she is free to make personal contacts at will, into an institutional way of living where rigid conformity is the rule.

95. As a result of these interviews we formulated the provisional hypothesis that the chief causes of wastage fell into two groups:—

- (a) those associated with the attitude of senior staff and their alleged lack of sympathy and understanding, leading to a cramping and over-disciplined existence.

- (b) those associated with the amenities of life, food, accommodation, hours and pressure of work, privacy, etc.

96. We next initiated the collection of a large body of data with a view to verifying the accuracy of this hypothesis. We in no way suggest that the statements thus obtained, or the impressions they convey, should be accepted without question, though they are strongly reminiscent of statements contained in previous reports on this subject. There is no doubt much that might be said on the other side, and, in particular, account must be taken of the strain and pressure under which hospital staffs have laboured continuously for so long. Always have the matrons and ward sisters in training hospitals been required to perform a double task. They are charged with the care of patients without an adequate supply of trained staff: they are responsible for the training of the student nurse who is in actual fact carrying a large part of the weight of the nursing work, and it is inevitable, and right as things stand, that the needs of patients for nursing care should be placed before the interests of students.

97. *Causes of wastage as recorded by hospitals.* As stated in the preceding chapter we invited the sample hospitals to submit details of "causes of wastage". There can, however, be little doubt that the true reasons for leaving are rarely given by the nurse to the hospital authorities unless the reasons contain no implied criticism of the administration or conditions of living or the attitudes of senior staff. A student who abandons training primarily because she is unable to get on with the ward sister is unlikely to say so explicitly to the matron: she is more likely to talk of "private reasons" or to put forward medical reasons. In spite of these defects, the questionnaires were useful. It was only from the hospitals that we could learn the total loss from any given intake and the numbers leaving at each stage of training. Furthermore, the hospital analysis of the causes of wastage was of interest for comparative purposes to study side by side with data obtained from other sources, particularly from ex-student nurses themselves.

The grounds for wastage as tabulated by the training schools are set out in the following Table.

TABLE XIX

*Causes of wastage as recorded by training hospitals: * average proportions
1937 to 1945:*

Cause of Wastage	General		Mental Hospitals and Institutions		Infectious Diseases Hospitals	Tubercu- losis Sanatoria
	Voluntary	Municipal	Male	Female		
	%	%	%	%	%	%
Sickness (on medical certificate) or death	18	17	5	8	9	12
Marriage	15	11	—	11	5	8
Failure in examinations ..	16	15	—	1	13	6
Discharged by hospital ..	8	8	14	10	10	5
Resigned	25	34	54†	51	39	48
Other causes	18	15	27	20	24	21
TOTAL	100	100	100	100	100	100

* The figures for the non-mental hospitals relate to both sexes; in fact the proportion of males is very small.

† Includes those called up to the Armed Forces.

98. From this Table it may be seen that, in general training schools 1 in every 7 who abandon training does so because of marriage, 1 in 6 because of failure in the Preliminary State Examination, and 1 in 6 on health grounds. 1 in every 3 resigns, 1 in 13 is discharged; the remainder leave for miscellaneous reasons. There is little difference between the voluntary and municipal hospitals except in the case of resignations which occur much more frequently in the municipal hospitals. The striking feature in the "special" hospitals is the large proportion of resignations—about 1 in 2.

Resignations and discharges from the hospital between them account for 60 or 70 per cent of the wastage in mental hospitals and sanatoria and for about 50 per cent. in the fever training schools. It is here that the hospital data are not informative and we need elucidation from other sources.

99. We may note at this juncture that marriage as a source of wastage need not be regarded necessarily as a complete loss. If the present attitude towards married nurses in hospitals were changed there would be a strong likelihood of many nurses remaining after marriage. The usual objections to the employment of married nurses cannot bear scrutiny.

100. *Visits to ex-student nurses.* The sample hospitals were invited to submit the names and addresses of all nurses who left in 1945 before completing their training, and 1,307 names were so obtained. A random sample of about 25 per cent. of these ex-students was chosen for visits to be made by a psychiatric social worker or otherwise qualified research assistant. 341 visits were made to 262 ex-students. Contact was made with the ex-nurse herself in 55 cases and with one or more of her relatives in another 104 cases. In 56 cases, the ex-nurse had moved or was untraceable, in 11 cases the incorrect address had been supplied, and in 36 cases no one appeared to be at home, although two or more visits were made to make sure. The ex-students whose homes were visited were drawn from all the types of training hospitals and the visits were scattered fairly evenly over the different parts of Great Britain, the only regions not covered being South Wales and Monmouthshire.

Details will be found in the following two Tables.

TABLE XX

Number of visits made to ex-students trained in different types of hospitals

Type of Hospital	Number of Hospitals*	Number of Visits	
		Contact Made	Total Visits
General—			
Voluntary	19	73	115
Municipal	12	63	98
Mental	4	4	11
Maternity	2	4	7
Infectious Diseases	6	11	20
Tuberculosis Sanatoria	2	4	11
TOTAL	45	159	262†

* The figures in this column refer to the hospitals of the ex-students with whom contact was made.

† The difference between this column and the preceding column is the number of abortive visits.

TABLE XXI
Number of visits to ex-nurses in each Region

Region	Distribution by Training Hospital		Distribution by Home Address	
	Contact Made	Total Visits	Contact Made	Total Visits
London and Home Counties	61	102	59	94
South West	5	7	—	—
Berks, Bucks and Oxon	7	10	5	8
Eastern Counties	3	4	10	15
North-West and North Wales	15	31	22	41
Yorkshire	10	15	9	14
North-Eastern Counties	12	16	15	21
Western Midlands	17	31	16	27
Sheffield and East Midlands	11	19	5	13
South Wales and Monmouthshire ..	—	—	—	—
Scotland	18	27	18	29
TOTAL	159	262	159	262

101. Fifty-five nurses were interviewed personally and, where possible, intelligence tests and questionnaires were given. Six of these were judged unsuitable for nurse training on grounds of personality, 11 because they were temperamentally unfitted for nursing life, and 2 had no interest in nursing. These numbers are small and the margin of error may be wide, but the sample was random in so far as the composition of the sample approximates to the true composition of the student nurse population. We may conclude that in this sample about 1 in every 3 of those who abandoned training before completing the course should not have been accepted at entry. This establishes a *prima facie* case for a selection procedure,* so as to identify candidates who are unsuitable for nurse training and are likely to leave before completing the course. Actually the proportion of 1 in 3 may be unduly high under normal conditions. Our inquiry was made among students who left in 1945, some of whom may have taken up nursing purely as an alternative to other forms of work of national importance.

Of the 159 who were successfully contacted, either personally or through relatives, 16 (or 10 per cent.) were undergoing general or supplementary training elsewhere.

102. The following brief descriptions of ex-student nurses, considered unsuitable for nursing on various grounds, may help to show how, by careful scrutiny at entry, unpromising candidates may be detected.

INSTABILITY OF TEMPERAMENT

- (i) Pleasant but immature personality ; hysterical, cried when interviewed. Recovering from " nervous breakdown ". Always in sheltered employment. Now out of work.
- (ii) Pleasant, fairly intelligent, but over-excitable. Always suffers from migraine under stress. Over-dramatic.
- (iii) Suffers from hysterical fits. Always highly strung and considered by parents quite unfitted for stress of nursing. (Not interviewed personally.)

* See Chapter XI.

- (iv) Had nervous breakdown. Entire family tend to be neurotic. Parents consider she became too much emotionally involved in her nursing duties. Now a clerk. (Not interviewed personally.)
- (v) A delicate childhood. Schooling constantly interrupted, culminating in a complete breakdown at 15. Has since had many jobs. Restless and hysterical manner.
- (vi) Morose and gloomy and preoccupied with her state of health and her "nerve trouble".

UNSUITABILITY OF TEMPERAMENT

- (i) Pleasant and vivacious, with a lifelong ambition to be a dancer, for which she seems eminently suited in appearance and manner. Started nursing in war-time to comply with father's wish.
- (ii) Predominantly academic interests. Started nursing impetuously in a burst of idealism. Independent outlook with no pretence of practical efficiency.
- (iii) A country girl with a very definite dislike of working indoors.
- (iv) A conscientious objector to Women's Auxiliary Services or munitions and directed to nursing. Hated the idea of it and seemed unable to accept responsibility.
- (v) Very demanding and self-opinionated; unintelligent and spoiled. Appears rather "fast".
- (vi) Pleasant, intelligent girl with interests largely of an academic nature. Returned happily to clerical work in the Inland Revenue Department.
- (vii) Intelligent but over-sheltered at home and has academic rather than practical interests. Now in secretarial job.
- (viii) Pleasant, fairly intelligent with artistic interests. Quite unsuited for the discipline and communal life of nursing. Trained in art school.
- (ix) Not prepared for any job of work. Likes "gadding about" and fixed short hours in a clerical post. Started nursing from misguided patriotism, and possibly self-glorification.
- (x) "Bossy" and, though keen, would not submit readily to any discipline or convention. Rejected as Assistant Nurse after marriage, although she volunteered.
- (xi) Obviously delicate and hypersensitive. Liked the work but found the rush and pressure too much for her. More suited to a refined shop-assistant's post.

Note.—It is conceivable that a small proportion of these might not have "wasted" had training conditions been more congenial.

103. *Special study* of causes of wastage.* In order to examine more closely the causes of wastage, we have carried out a special analysis of 400 statements

* By the method of factorial analysis, the reasons for leaving being first inter-correlated by means of Yule and Kendall's coefficient of correlation for a four-fold table. More than two-thirds of the coefficients exceeded twice the standard error. Two factors were extracted by Burt's summation method followed by a least squares analysis (C. Burt, *The Factors of the Mind*. University of London Press. 1940). The first factor accounted for some 63 per cent. and the second for about 17 per cent. of the total variance. An interpretation of the first factor saturations is given in the text. The saturations for the second factor indicate the effects of equalising the potency of the reasons for leaving. If conditions were so changed that all the reasons for leaving were reduced to the same strength, the wastage would not be altogether eliminated. In such circumstances students who abandoned training would tend to do so either because of difficulty in adapting themselves to the material conditions of training or because of hypersensitivity to the way their human needs were met. This has a bearing on the selection of students for training because measures could be taken at the selection stage to pick out individual candidates who are hypersensitive in one or other direction.

or letters submitted by 400 ex-student nurses, explaining why they gave up training. These were students whose names were submitted by the sample hospitals as having left in 1945 and who were not visited at their homes.

The results of the analysis indicate that the reasons given in the 400 statements are due to a general factor underlying all causes of wastage : this factor is composite and appears to exert a pressure on student nurses to abandon training. It manifests itself as the combined effect of all the various reasons for leaving—hospital discipline, food, pay, and so on, and is not to be identified with any single facet or feature of hospital life. The individual reasons themselves interact with one another. Thus, unsatisfactory food or poor accommodation might be tolerated if the discipline were less severe.

104. But the reasons which enter into this composite factor are far from being equally important. The first in significance is hospital discipline ; the second, the attitude of senior staff ; the third and fourth, food, and hours and pressure of work.

105. The conclusion emerges clearly from this analysis that the type of discipline which pervades the training schools today is unquestionably the most important cause of wastage. This code of discipline is intelligible historically inasmuch as it was originally inspired by a conventual tradition. Self-abnegation was the keynote of this tradition which the insularity of institutional life has preserved more or less unaltered by the profound changes in social outlook which have affected the community as a whole. Nursing titles are survivals of this regime. During the inter-war years a generation has grown up nurtured on modern ideas of personal freedom and relationship between the sexes and, inevitably, a gulf has separated the representatives of the old order from the newcomers to nursing. Potential student nurses today for the most part regard nursing as a profession with no more justification than any other for encroaching unduly upon the personal life. In these circumstances it is not surprising that friction should occur between the older and younger generations of nurses. Feelings tend to be exacerbated by the psychological deprivations which the older generations had perforce to suffer and from which the emancipated younger nurse is free.

106. Inadequacy of food, both in quantity and quality and the span and pressure of working hours, come next in that order. Following on these are poor accommodation, insufficient pay, poor social and recreational facilities, and the domestic work which student nurses have to carry out. Dissatisfaction either with training methods or examinations is apparently unimportant in its effect upon attitudes towards nurse training. Dissatisfaction with arrangements for the care of nurses' health is in rather a different category : it does not tend to provoke discontent with other features of hospital life, as do hospital discipline and attitude of senior staff. Private reasons and marriage exert a kind of "negative" effect. In other words, a nurse who leaves training for private reasons, or because she intends to get married, will tend to overlook the reasons for leaving frequently mentioned by other nurses.

107. It follows that in order to reduce wastage to reasonable proportions steps must be taken to eliminate the main causes which would appear to operate. Experience teaches that, as far as the first two causes are concerned, it is of little use merely *appealing* to hospital authorities to modify discipline or to adopt more understanding attitudes. The introduction of *structural* changes in the organisation and staffing of training schools is certainly needed. The same applies

to the changes required to lessen the "wastage" effect of long hours and undue pressure of work. The elimination of "food" as a contributory cause of wastage should be, administratively, the easiest to achieve.

The foregoing paragraphs are concerned with the evidence obtained from ex-students. In the course of our visits to hospitals we sought the views of random groups of nurses of all grades, and we also obtained a number of written statements from nurses. The views so expressed fully confirmed those of the ex-students.

108. A number of important conclusions follow directly from this inquiry. If the wastage of student nurses is to be reduced from the present rate of about 50 per cent. of the intake to reasonable proportions, the following changes must in our view be introduced :—

- (i) Nurses in training must no longer be regarded as junior employees subject to an outworn system of discipline. They must be accorded full student status with the conditions such status implies, so far as the intrinsic requirements of nurse training permit.
- (ii) A new selection procedure for student nurses.*
- (iii) A method of selection† for appointment to senior posts which will help to secure that only those are appointed who possess the capacity for developing satisfactory human relationships.
- (iv) Steps must be taken to improve the quantity and quality of diet‡ and to provide suitable accommodation and other amenities.
- (v) The training day must be reduced in span so that it approximates as closely as is practicable to that of a "normal" working day. This involves the introduction of a three-shift system.

CHAPTER VIII

The Training of Nurses—The Present Position

109. The training of nurses today is designed to prepare for bedside nursing. This system is rooted in a tradition which knew little of preventive medicine or positive service for maintaining the health of the community. Of all qualified nurses in civilian employment about 60 per cent are working in hospitals; the majority of the remaining 40 per cent. are in the public health fields, including district nursing and midwifery. We are not able to say whether these are necessary optimal proportions for the employment of nurse-power. Further study might show that standards of health could be raised and the cost of sickness reduced if a larger proportion of nurses were engaged in public health work. Yet the present basic training of nurses is restricted to preparation for institutional sick nursing and the time devoted to preparing for public health nursing is negligible.

* See Chapter XI.

† See Appendix IV.

‡ This subject has been admirably dealt with in the "Second Memorandum on Hospital Diet," issued by King Edward's Hospital Fund for London.

110. Under a State policy of full employment it becomes a matter of vital concern to ensure that the incidence and after-effects of ill-health are minimised. The larger the burden of sickness the more adverse the effect on the standard of living. It follows that the traditional conception of nurse training, itself determined by the function of a trained nurse, must be adapted to meet the new situation, and the content of nurse training directed to reducing the cost of sickness in economic as well as human terms. This alone might well involve a complete reorientation in primary nurse training which will have to become preparatory to professional work in all health fields, social, industrial and educational, as well as institutional.

111. The position of the present training schools leaves much to be desired in other respects. There is variation from school to school in the content, length and efficiency of training, and the careers of individual students vary greatly in the stages of training through which they pass. Some start in a general hospital, others in so-called "special" hospitals, for example, sick children's or fever, orthopaedic or eye or ear hospitals, and then proceed to a general hospital. Again, the unsystematic allocation of student nurses to wards is a source of uneven training and associated discontent and inefficiency. As a result, a student nurse, on qualifying, may even be appointed staff nurse in a type of ward of which she has had no previous experience. Faulty distribution of training is a handicap to the student nurse herself, a source of difficulty to her sister-tutor and an impediment to the administration of wards generally. Thus a student nurse who is compelled to remain in the same ward under the same sister for an unduly long period is apt to lose interest and may abandon her training altogether.

112. In a large number of hospitals, formal teaching in the wards is negligible. Many student nurses are taught practically nothing by their ward sisters; others may occasionally pick up odd items of information by sheer chance. In the course of studying the work of 36 student nurses our investigators came across no instance of any formal clinical teaching in the wards. A student nurse, even after many weeks in a ward, may know neither the names of the patients nor the ailments from which they suffer. Nor is the quality of the teaching given in the class room always up to a standard educationally satisfactory. This is to be expected in view of the small number of sister tutors who have so far been trained in modern educational methods.

When all the possible fields of nursing are taken into consideration, few if any training schools can claim to provide training which is comprehensive, or which will give the student nurse at an early stage an opportunity to obtain a picture of the many potential fields of activity open to her when she qualifies.

113. *Number and size of training schools in Great Britain**. There are at present 389 complete, 167 affiliated and 5 associated general training schools in Great Britain approved by the General Nursing Councils of England and Wales or Scotland, making a total of 561 in all. It is unlikely that so large a number of training schools could all have adequate clinical material, proper training facilities and equipment, well-trained sister tutors, or students in the numbers needed to run a training unit efficiently.

Efficiency must, in part, depend on the size of the school, *i.e.*, the number of beds and the availability of sufficient clinical material for training purposes. Teaching skill and facilities and equipment generally are usually better in larger institutions. As in the case of other educational or social units, there is probably

* For fuller details of approved training schools of all types, see Appendix V.

an optimal size which will produce the best results. This optimal size has yet to be determined, but even at this stage it may be confidently asserted that no hospital with less than 100 beds can provide the variety of training in sick nursing which is essential.

114. In 1938 there were in England and N. Wales 31 hospitals with 50 or less beds and 72 with 51 to 100 beds approved for general training.

The number of students in these hospitals is shown in the following Table:—

TABLE XXII

Number of students being trained in 1938 in general hospitals with less than 100 beds

Number of Students	General Hospitals with	
	50 or less Beds	51 to 100 Beds
5 or less	2	—
6-10	20	8
11-15	9	12
16-20	—	25
21-25	—	16
26-30	—	9
31-35	—	2
TOTAL	31	72

Since 1943, it has been the policy of the General Nursing Council for England and Wales to withhold approval as complete training schools from hospitals with less than an average occupancy of 100 beds, and as affiliated training schools from hospitals with less than 50.

115. *Present length of training.* The period of training now required for the general or supplementary registers varies from four years in affiliated (and some complete) training schools to two years if the nurse is already on one of the supplementary registers. In most cases it is three years. The system is confusing, wasteful of time, and prevents the largest number of nurses having the same all round training. Furthermore, it postpones unnecessarily the time when a student nurse can begin to assume professional responsibility, and encourages the accumulation of certificates which overlap in the qualifications they signify.

Numerous anomalies thereby arise. Thus a State Registered Nurse who has qualified for the general, or one or other of the supplementary registers, requires two years' training before she can qualify for the sick children's register. But there is no evidence to show that anything more than a fraction of this extra time is needed to provide a trained nurse with the additional knowledge and experience required for nursing sick children. Again, the additional training time at present required of a nurse with a general training before she can qualify as a fever nurse is one year. An analysis of the content of fever training shows that this additional year is excessive.

116. The same extravagance of time occurs when the supplementary training precedes general training. The period of training required for registration as a nurse for sick children is three years in a school giving complete training. The

first two of these three years provide training which is practically identical with the first two years' training for the general part of the register. Yet a Registered Sick Children's Nurse must spend another two years of training before she can qualify for the general register. The varying periods of training thus required under different conditions are indicated in Appendix VI.

117. In the course of time nursing has become related to an ever-widening field and the training period has consequently tended to grow. In order to cover new elements in nursing, and to ensure a more comprehensive type of training, subjects have been added and the length of the training period extended, without analysing sufficiently the existing content or appreciating how much is now included which is unnecessarily repetitive. New needs have been met by new additions to, rather than by the appropriate revision of, the content of training.

118. *Content of training—results of job-analysis**. We have analysed (by a careful job analysis) the content of the present nurse training courses so as to determine, first of all the amount of time taken up with domestic duties; secondly, to ascertain how much of the content is repetitive, and, thirdly, to assess the extent of overlapping between the various training courses.

The daily routine of 36 student nurses and 3 pupil midwives was studied in great detail. It is upon these studies that the following paragraphs are based. In addition, to supplement these inquiries, job analyses were made of the work of 12 sisters, 8 staff nurses, 3 assistant nurses and 2 nursing assistants. These nurses were employed in general (voluntary or municipal), maternity, mental, fever or sick children's hospitals, in tuberculosis sanatoria or public assistance institutions. We have also collected some data in the public health field for health and tuberculosis visitors, school nurses, and industrial nurses, but pressure of time has prevented our making full use of this particular material. Some idea of the scope of the inquiry may be drawn from the fact that the work occupied a trained investigator, together with a trained and experienced nurse, full-time for some eight months.

119. *General training*. During the three years which the average student nurse at present spends in general training there are about 6,900 working hours. This figure is based on a 48-hour week with 4 weeks' annual holiday. This does not imply that *all* student nurses work a 48-hour week and have 4 weeks' holiday, but for the present purpose we may take this as a basis. About 240 hours are generally devoted to lectures, part falling within the 6,900 hours and part in "off-duty" time. As may be seen from the following Table, the results of the job analysis suggest that the student nurse in general training spends, on the average, a third of her first year, a quarter of her second year and a sixth of her third year in domestic work. Taking the three years together some 1,500 hours, or rather less than a quarter of the time, is now taken up with duties of a domestic kind.

It has to be recognised that at present the student nurse is almost invariably a "student" in name only. First and foremost she is an employee of the hospital with which she signs a contract, and her training is largely incidental to her daily duties. This in part accounts for the fact that a substantial proportion of her

* Job analysis is a systematic study of all the facts about a specific occupation which have a bearing on selecting or training workers or improving methods of work. It includes a description of the work elements, duties, responsibilities, difficulties, conditions of work and pay, staff relations, opportunities for promotion, personal qualities needed, education and experience required and levels of acceptance on selection tests. The results are set out in a job specification.

time is spent on non-nursing duties which could be properly performed without any nurse-training at all.

TABLE XXIII

Estimated percentage distribution of training hours spent in nursing and domestic duties during general training

	Nursing	Domestic	Total	
			Per cent.	Number
First Year	67	33	100	2,300
Second Year	76	24	100	2,300
Third Year	84	16	100	2,300
TOTAL	77	23	100	6,900

120. The remaining three-quarters of the training period include 4,100 hours devoted to nursing practice, including some theory, but this is not necessarily the amount of time required for the purposes of training. A detailed study of nursing techniques suggests to us that what is now absorbing 4,100 hours of training might well be taught to the average student in some 1,600 hours. If this is true, then 2,500 hours, or 60 per cent. of the time now spent in this part of training represents sheer repetition dictated by the requirements of ward work, and is in excess of what might well be the reasonable amount of time required for the actual learning of nursing practice up to the standard required for the General Register. To give one example, we suggest that the duties included in Group 5 of the schedule given in Appendix VII could be learnt in some 200 hours. In actual fact we have found that student nurses are spending about 1,150 hours on this one group of activities.

121. Our estimate of 1,600 hours as "necessary" for learning the nursing skills *now being taught* in 4,100 hours is not given as an exact assessment. The time needed would depend on the quality of the student material and the efficiency of the tuition. While, no doubt, this estimate may be subject to variation in the light of further experience and experiment, we believe that it may be taken as a reasonable working basis.

122. We indicate provisionally in Appendix VII that some 2,200 hours are "necessary" for learning basic nursing skills, allowing for teaching certain aspects of nursing practice generally not taught now and not included, therefore, under the 1,600 hours referred to above. If, in addition, suitable provision is made for (a) more lectures and demonstrations, (b) educational visits, and (c) some study of public health nursing, the total hours required would still remain less than would be available in a training period of two years, allowing for six weeks' annual holiday and a five-day training week of forty hours. It would thus appear possible, by reorganising the system of training, and treating student nurses as students, to provide within a period of two years a training at once more comprehensive and more effective than that now given. In our view this wider training is essential if the preventive and curative aspects of nursing are to be properly integrated.

123. *Supplementary training fields.* In the nursing fields other than general the picture is much the same. The job analyses suggest that the proportion of

training time spent in domestic work varies. It may rise to nearly 40 per cent. in sanatoria; in mental training, it* seems to consume a quarter of the time and in fever training about a third of the time. The comparative proportions are set out in the following table. These proportions are based on data from several institutions which exhibit appreciable variation from place to place.

TABLE XXIV

Estimated percentage distribution of training hours spent in nursing and domestic duties in the "supplementary" fields

Nursing Fields	Nursing	Domestic	Total	
			Per cent.	Number
Mental	74	26	100	6,900
Sick Children	78	22	100	6,900
Fever	67	33	100	4,600
Tuberculosis	63	37	100	4,600
Maternity*	91	9	100	1,150

* Part I Midwifery. The estimated distribution of training hours in the maternity field is based on a limited number of observations only and may not represent the average.

124. Turning to nursing duties we find that the amount of needless repetition is as marked in "special" as in general nursing, the only exception apparently being maternity nursing. A glance at the following Table suggests that in mental and sick children's nursing the time allowed for training is three times that probably necessary to cover *what is now taught*; and in fever and tuberculosis training, between two and three times.

TABLE XXV

Estimated actual and "necessary" time for acquiring nursing skills in the "supplementary" fields*

Nursing Fields	Actual	"Necessary"
	Hours	Hours
Mental	4,150	1,350
Sick Children	4,350	1,350
Fever	2,500	1,100
Tuberculosis	2,350	850
Maternity†	830	1,000

* "Necessary" for what is now being taught.

† Part I Midwifery.









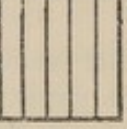
125. A study of the approved syllabuses of training for the general and supplementary parts of the Register and also for the Orthopædic and Tuberculosis-Association Certificates shows that the content of the first year of training is common

* This excludes supervision of domestic work being carried out by patients.

to all. This is illustrated in Fig. IX below, where similar shading indicates similar content.

Fig IX

CONTENT OF NURSE TRAINING COURSES
(Variation in shading denotes variation in content)

Year of Training	GENERAL REGISTER	SUPPLEMENTARY REGISTERS				Tuberculosis Association Certificate	Orthopaedic Certificate
		Mental	Mental Defectives	Sick Children	Fever		
First							
Second					+++ +++ +++		ooo ooo ooo
Third							

An examination of actual training content by job analysis confirms that this is in fact the case. Thus the present general course overlaps one-third of the mental and mental defective courses ; one half of the fever, tuberculosis and orthopaedic courses, and two thirds of the sick children's nursing course. In view of this overlap, the training requirements laid down for "supplementary" fields could, it would appear, be met in a period of 900 to 1,000 hours for mental nursing*, and in about 500 hours for fever, tuberculosis and sick children's nursing, over and above the training given in the general course.

126. It follows from the foregoing estimates of training requirements that a course of training lasting two years might be devised for all nursing fields, of which the first 18 months would be devoted to a common content for all students, and the remaining six months to concentrated study and training in a chosen field. In this last six months a student might elect either to continue with general medical and surgical nursing or concentrate on public health, psychiatric or pediatric nursing or on communicable diseases, including tuberculosis.

* It will be seen from Table XXV that the same figure might apply to midwifery (Part I).

CHAPTER IX

The Training of Nurses—A New System

127. In the preceding chapter we have attempted to demonstrate that the present training period is unnecessarily prolonged because it includes a considerable element of domestic work that would be more appropriate to ward orderlies or domestic staff, and a high proportion of nursing duties dictated, not by the requirements of training, but by the staffing demands of the hospitals. We have also set out facts which indicate an appreciable overlap between the general and supplementary courses of training and suggest that a much fuller and wider course could be completed within a period of two years. It is against this background, and to remedy the shortcomings of the present system, that we have framed our proposals for a new scheme.

128. This new scheme would provide a course of basic training for all nurses lasting two years. As already indicated, the first 18 months would be devoted to the fundamentals common to all fields of nursing, and the remaining six months to concentrated training in a particular field, at the end of which, and subject to examination, nurses would be granted provisional State registration and would be entitled to the pay, status and title of State Registered Nurses. They would then be required to spend a third year in nursing practice under supervision before provisional registration would be confirmed. This would mark the stage when the nurse is licensed to engage in private practice or to be employed otherwise than under supervision.

With the saving of time that could be effected if student nurses were treated as students, the scope of the course, even within the shorter period suggested, could be made substantially wider than that of the "general" training now required for entry to the State examinations for the General Register. When, therefore, we speak of "basic" training, we give the term "basic" a wider connotation than that of the term "general" as now understood.

129. We may now consider more closely how all the nurse training fields might be integrated in a single course. In what follows, we do not attempt to develop a detailed syllabus of training, but confine ourselves to indicating, on broad lines, a proposed content and time distribution. We suggest that the common part of the basic training should occupy 69 weeks and the whole two-year period be divided possibly as follows :—

	<i>Weeks</i>
1. <i>Introductory Course</i>	12
Basic sciences.	
Theory and practice of nursing.	
Educational visits.	
Introduction to hospital wards.	
2. <i>Pediatrics</i>	9
Nursery schools and nurseries.	
Out-patient departments.	
Sick children's wards.	
3. <i>Obstetrics</i>	4
Ante- and post-natal clinics.	
Maternity wards.	

4. <i>Communicable Diseases</i> —including <i>Tuberculosis</i>	..	4
Immunisation clinics.		
Tuberculosis dispensary.		
Wards.		
5. <i>Medicine</i>	.. .. .	10
Out-patient departments.		
Medical wards.		
Dietetic department.		
6. <i>Surgery</i>	.. .. .	13
Out-patient department.		
Surgical wards.		
Operating theatre.		
7. <i>Gynaecology</i>	.. .. .	4
Out-patient department.		
Wards.		
8. <i>Public Health</i>	.. .. .	5
Survey of whole " field "		
Health visiting and school nursing.		
District nursing.		
9. <i>Psychiatry</i>	.. .. .	8
Child guidance and out-patient clinics.		
Admission blocks and wards.		—
	Total	69
10. <i>Period for chosen field</i>	.. .. .	23
<i>Vacations</i>	.. .. .	12
		—
	Total	104
		—

130. The explicit aim of the new system of nurse training that we advocate is the development, gradually but as soon as possible, of a nursing service in closer accord with modern ideas of social and preventive medicine. The general trend in the health services is, in fact, towards this broader conception—that health preservation and health education merit considerably more attention than they now receive : that the individual must be regarded as a complete entity, body and mind : that the social as well as physical environment must be considered, and that positive health must be secured for families and communities as well as for individuals. To realise this broad conception it is necessary that the preventive aspect be integrated with the curative throughout the whole course of nurse training sketched above. Health nursing and sick nursing must be considered side by side and the approach should be from the normal to the abnormal.

131. During the introductory period the student nurse should be made aware of all fields of nursing which will be open to her. The picture must be drawn in bold outline to show, during the early stages of training, what the community is doing, through its various health agencies, to encourage and promote positive health in its members. This will involve a close affiliation, hitherto lacking, between training units and the local health authority organisations. At the same time there would be formal lectures on basic sciences, together with demonstrations

and simple laboratory work. During this period also, while students are themselves being immunised against infectious diseases, an admirable opportunity presents itself for teaching the elements of bacteriology together with the principles of preventive medicine, community hygiene and the social aspects of disease.

Later, the sphere of abnormality would be approached by gradual introduction to the wards of hospitals. Ward work would throughout be associated with attendance at out-patient departments or clinics and also with "follow-up" visits to discharged patients carried out by hospital almoner, health visitor, district nurse or psychiatric social worker. By this method the community rather than the individual aspect of breakdown in health can be stressed both in practical ward work and in the accompanying lectures and discussions.

132. It will be noticed that we have given pediatric nursing prominence early in the course of training. This is psychologically sound, inasmuch as the nursing of infants and children prepares the way for the nursing of adults rather than *vice versa*. Adult patients tend to display something of the helplessness of children, and a nurse who has handled children will approach the adult patient with more confidence.

For the remainder of the 18 months of training common to all fields of nursing, students would devote their time to acquiring essential knowledge and skills, accompanied by related teaching through lectures, demonstrations, tutorials and study periods.

133. After this period of common training, they should be given the option of choosing, for concentrated training or study, one or other of the several nursing fields. While many will continue in general medical and surgical nursing during the final six months of training, others will no doubt choose a particular field, *e.g.*, public health, pediatrics or psychiatry. It is a fact that a distinct vocational urge to take up one particular branch of nursing often exists before training begins. It happens too often now that such nurses are debarred from promotion in the career of their choice unless they spend a considerable further period of time in repetitive training acquiring a certificate which has little bearing on their future sphere of work. If our scheme were adopted this dilemma would disappear. For example, a student who chooses pediatric nursing and intends to remain in this field will be no less eligible for promotion than a student who chooses general medical and surgical nursing in the optional period.

134. It may happen that a student who chooses a particular nursing field for the optional period of six months may decide at the end of this period to enter training in a different field. She would be permitted to do this provided she continues to retain her student status for this second optional period and provided, of course, that she practises for one year under supervision. If she decides to change her field of choice, not at the end of the optional period but at the end of the third year or subsequently, she would revert to student status for six months but would not require an additional year of supervision.

135. It may be desirable to indicate in broad terms only how this system of training would affect various fields of nursing.

General Medical and Surgical Nursing. During the first 18 months of training the student will have had 10 weeks of medicine and 17 weeks of surgery including gynaecology. Medical nursing would cover the care of male and female patients (including chronic sick) suffering from medical conditions and would also cover

dietetics. Surgical nursing would offer experience in the care of general surgical conditions and in the operating theatre. In both medical and surgical nursing the principle of following up patients through out-patient departments and home visits should be continued as we have previously suggested. The final six months would be devoted to more detailed study, both theoretical and practical, of various aspects of medical and surgical nursing. The third year as a staff nurse under supervision would be spent in a general hospital.

136. *Public Health Nursing.* One special feature of this scheme is that for the first time in this country it would provide a basic training for public health nurses. In the past, training for the public health field has been superimposed at the "post-graduate" level on hospital training. It appears doubtful whether a nurse, who has been in constant contact with sick people for three or four years, can so readjust herself during subsequent training as to be able to assimilate the essential principles of social and preventive medicine. These principles are fundamental and need to be grasped by the student at an early stage of training in order that preventive and curative nursing may be placed in their proper perspective.

At present there are seven main branches of public health nursing, viz.: health visitor, school nurse, tuberculosis visitor, venereal disease visitor, nursery matron, industrial nurse, and district nurse. In many cases one nurse combines the functions of two or more of these. Our proposed scheme provides, in the first 18 months, a considerable part of the preparation for all these branches. In the final six months of concentration we see no reason why the period of public health training should be uniform for all students. The first three months might be common to all and students might then diverge, according to preference, in one or other of the public health fields.

137. *Pediatrics.* During the nine weeks of pediatric nursing in the common period the student would gain some experience in the care of healthy and sick children, first in children's nurseries and subsequently in out-patient departments and sick children's wards. This experience would be further developed in the six month's period of concentrated study. A year of work as a staff nurse under supervision would follow in an approved sick children's hospital or other approved institution for the care of children.

138. *Psychiatry.* An opportunity here presents itself for integrating the mental with the general nursing services of the new health measures. We propose that in the common period, eight weeks would be spent in learning the principles of psychiatric nursing. Students would be introduced to the milder types of mental disability in children and adults from a social and preventive standpoint, leading on gradually to the study of psychosis. As in the other fields, the optional period of six months would be spent in intensive preparation for psychiatric nursing.

139. *Examination.* We suggest that the State examination in the new scheme might be divided, as now, into two parts, the first taking place at the end of 18 months and the second at the end of the two years. The first examination would embrace the whole content of the common course; the final examination would be closely related to the specific content of the chosen period. The technique of the written examinations should have regard to the objective tests developed in other educational fields. Furthermore, some system should be introduced to check the methods of examination against evidence of subsequent proficiency.

140. *Registration.* As previously indicated (para. 128), on the successful conclusion of the two-year course, the student would qualify as a State Registered

Nurse, with the title S.R.N. and the pay and status of a qualified nurse. She would not, however, be permitted to engage in private practice, or be employed otherwise than under supervision, until she had completed a further year's work under an appropriate supervisor. During this period no formal training would be given; the aim should be to enlarge the nurse's experience of the field in which she proposes to work. At the end of the third year the nurse would receive a certificate from the supervisor* to the effect that the year had been profitably spent. The issue of this certificate should mark the stage when the nurse is licensed to practise.

There will thus be a single title—State Registered Nurse—for all types of nurse who will have undergone a training of the same duration. A parallel is to be found in the long-established custom of the Universities in awarding a B.A. or B.Sc. to graduates in many different subjects.

141. No training scheme is planned to produce a completely "finished" product with nothing left to learn. Years of experience may be needed before full professional maturity is reached. What a training course can do is to prepare the trainee to profit from such experience as and when it comes. It follows that too much should not be crowded into the actual training period and that we must distinguish between what belongs to training proper and post-training respectively. The year of work under supervision is intended as a provisional step to ensure that a certain measure of responsibility in nursing is acquired before a nurse launches forth on her own.

142. *Midwifery.* At this juncture we would point out that it was impossible to review the whole field of nursing without giving some consideration to midwifery. Pupil midwives are either persons who have had no previous nurse training or State Registered Nurses. According to information supplied by the College of Midwives the number of the former passing through the Part II Midwifery schools is now under 10 per cent.† of the whole and is declining, State Registered Nurses constituting 90 per cent. of all pupils in Part II schools. Not a few of the latter enter midwifery training with the sole aim of obtaining an additional qualification to further their advancement in the nursing profession, but with no intention of making a career in midwifery.

143. In view of the setting up of a separate Working Party to examine the problems of midwifery, and of the restricted field which we were therefore advised to study, it is with some hesitation that we would draw attention to the possible application of our proposed scheme to the training of midwives. Under our scheme the period of four weeks' maternity nursing included in the first eighteen months of training might be followed, in the optional period, by six months' intensive study of midwifery. This seven months in all would cover broadly the present syllabus for Part I Midwifery, while the year of work under supervision would correspond to experience obtained in Part II of the Midwifery course.

Our enquiries, so far as we have been able to take them, suggest to us that it would be wholly desirable that nurses and midwives should have a common basic training, thus leading to a unification of the nursing profession.

144. To sum up: the advantages of a system of training, such as we recommend, seem to us to be many. In the first place, a uniform qualification would be given

* The supervisor would be approved by the training authority (see Chapter XII).

† It is even lower in Scotland.

to all students who qualify at the end of their two years' training, and one common Register would replace the present General and Supplementary Registers and could, if desired, include the Rolls of the Central Midwives Boards, thus giving all nurses and midwives, on qualifying, equivalent status. As a result of a common training, impediments to mobility would be largely removed and the nursing fields would become more closely integrated, particularly the mental with the non-mental. Standards of training would tend to reach the same level and the prestige of certain branches of nursing which now enjoy less popularity would be increased. The training system as a whole would be greatly simplified and appreciable economy of nurse power might be effected. Finally, a more secure and uniform foundation would be laid for any future "post-graduate" studies.

145. We conclude :—

- (i) A two-year course of training for all nurses as outlined in this chapter should be instituted.
- (ii) There should be provisional registration at the end of two years subject to confirmation at the end of a year's satisfactory practice under supervision.
- (iii) There should be a uniform qualification and title for all nurses and a single Register.
- (iv) Consideration should be given to the application of the scheme to the training of midwives.

CHAPTER X

Some Implications of the New Scheme of Training

146. If student nurses are to be treated as students, and the new training scheme successfully implemented, certain requirements must be met as indicated in the following paragraphs.

Basic Conditions. Conditions must be such as to permit the planning and conduct of training courses unhampered by the staffing requirements of particular hospitals. It follows that there must be an adequate and stable domestic and nursing staff in whatever hospitals, wards or departments are used for training purposes, to perform the domestic duties now falling on the student, and to fill the gap created in the ward services by eliminating unnecessarily repetitive work.

147. The rotation through hospital wards and departments, or through other branches of nursing, must be dictated by the nurse's needs as a student. A complete course of training must be laid down and adhered to, with teaching planned and continuous in all essential subjects and aspects of nursing, including systematised practice in techniques.

The dissociation of training from staffing needs, which follows from the above, will place the student under the control of the training authority (see Chapter XII) and not under that of the hospital. Senior nursing staff will exert authority over the student only in so far as this is necessary in the exercise of teaching functions or for the care of patients.

148. The cost of training should be dealt with entirely separately from the general maintenance expenditure of the hospitals in which training is given.* Without question the present financial dependence of nursing schools upon the finances of the hospitals to which they are attached nullifies any serious attempt to improve the training of nurses. Student nurses would cease to be employees of the hospital and would not be bound by contract to an employing authority.

149. If the nurse in training is to be a student in the full sense of the word, the notion of "recruitment", implying recruitment to employment, will no longer apply to her, though the machinery of the Ministry of Labour and National Service would continue to function in so far as it deals with choice of careers and is in touch with the training authorities. Just as in the educational sphere a responsibility rests upon the Minister of Education and the Secretary of State for Scotland for ensuring, so far as lies in their power, that sufficient teachers are available for the education services under their charge, so, we conceive, should a responsibility rest upon the Minister of Health and the Secretary of State to ensure that the nursing personnel required for the public health services are secured. It will be their concern to watch demand and supply and to take steps as necessary to stimulate the flow of students so as to ensure that supply meets demand.

150. *Span of training day.* We have concluded from our study of wastage that the training day must be reduced in span so that it approximates as closely as is practicable to that of a "normal" working day, and that this involves the introduction of a three-shift system. Such a system is no less necessary to provide a normal working day for qualified staff than it is for students. Given the necessary staff it would be quite practicable to arrange this in spite of the fact that hospital routine requires a 24-hour working day. We have discussed the question with large numbers of nurses of all grades and, generally speaking, they declare their wholehearted preference for a shift system.

151. We have not met any evidence that the shift system is unpopular with patients or is bad for them. It is desirable that a patient should know which nurses he can turn to for nursing care, but this is no more difficult with the shift system than with the "split duty" day. Moreover, the case assignment method is easier to work under this system. The present arrangement in training hospitals is, in fact, so confusing that few patients can know which of the ward nurses are really available. A patient in a ward of 25 to 30 beds is probably treated by six or eight different nurses during a day of 24 hours. The need for continuity of supervision in the ward may be met by a system of overlapping during the change-over period, ensuring that a qualified nurse will always be immediately available. A nurse's care and supervision of her patient are likely to be more efficient in an eight-hour span than in one of 12 or 13 hours. The rest period introduced under the split duty system is a poor compensation for the long stretch of duty.

152. As far as student nurses are concerned, the day is now broken up into periods in the wards, in lecture rooms, or off-duty, and is more fragmented than it would be under a shift system which would make it easier to systematise training. Among its many advantages may be counted the opportunities of non-residence, of having free time at the same hours as persons in other occupations, and avoidance of the insular and cloistered life of an institution.

* We assume that the cost of training as an essential part of the National Health Services will fall wholly on the Exchequer.

153. The time for starting the day shift in the wards in most hospitals seems to us to be earlier than it need be ; indeed, the present system would appear to rest in part on the inertia of tradition. The doctor's morning round all too often dominates the picture and, in preparation, patients are awakened at an hour they would not tolerate if they were at home. The aim should be to depart as little as possible from normal home routine for patients and, so far as student nurses are concerned, we consider that the span of daily duty should not begin before 8 a.m.

154. *Teaching needs.* The success of a scheme on the lines we have propounded will depend on the sufficiency and quality of the teaching staff provided. There were in August, 1943, 834 sister tutors in hospitals, but not all of these were qualified. In 1944 there were 417 qualified and 267 unqualified sister tutors training students for the General part of the Register. The number at that time teaching for the Supplementary Registers is unknown. It seems probable that by the end of 1946 there were some 1,000 sister tutors (qualified and unqualified) in all the hospitals of Great Britain. According to an estimate made in 1943, 900 qualified sister tutors would be needed by 1947 for training State Registered Nurses. This estimate must certainly be revised in the light of the new tasks that will fall to those responsible for instruction.

155. It will also be necessary to review the training of nurse instructors to bring it into line with their new functions. The main part of the training course for sister tutors or nurse instructors would need to be devoted to the study of modern educational methods. Nurse training calls for all the devices—classroom technique, visual aids*, practical demonstration, experiments, case history study—which the well-equipped teacher would employ.

Particular consideration will need to be given at an early stage to the provision of adequate facilities for teaching in the various branches of public health. This is necessary because in the proposed scheme a period of public health experience is included in the training of every student, apart from the optional six months which some may devote to public health. Similar measures will need to be taken in certain hospital fields now lacking organised teaching facilities.

156. Nurse training has much to learn from developments in other training fields. The potential value for nursing of applying principles of work simplification, long established in industrial psychology, is all but unexplored. Such principles have a direct bearing both on methods of nurse training and on the performance of many duties falling to the lot of the trained nurse. Work simplification leads to

* Special importance attaches to visual aids. These have a unique function as improved teaching media. By their judicious use appreciable economies could well be effected in the number of tutors required. A growing range of devices is coming into being which take over from the tutor some of her former functions and perform them better than she could herself by her own unaided efforts. The teacher becomes free to quicken the interest and imagination of the individual student. Rigidity of time and subject matter are replaced by an elasticity which takes full account of the variations in human ability, aptitude, interest and temperament displayed by the student material. Various anatomical models and charts are to be found in most training schools. These devices are sometimes merely incidental to the lecture. Nurse training offers unusual scope to the entire armoury of visual, auditory and other sensory and mechanical aids, as, for example, pictographic representations, epidiascopes, film-strips, full length silent and sound films, and even radio and television broadcasts. Physiology, hygiene, medicine, surgery and practical nursing all lend themselves readily to presentation by these methods. In such ways a sister tutor could be liberated from enforced confinement to the class-room and become free to instruct wherever and whenever their individual needs for her guidance arise. Furthermore a much wider range of students can respond to a concrete or visual treatment of technical subject-matter than to an abstract or purely verbal treatment.

economies of time and effort and to reduced fatigue. No less important an item in the smooth and efficient running of a training or working unit is the human factor in staff relations. In nursing, as elsewhere, incentives must be kept alive, interests must be sustained, and team-work must be inspired. To achieve these ends, suitably selected teachers and other senior staff must be trained to acquire the necessary skill in handling people and in understanding their needs.

157. *Remuneration—Training Grants.* Under present arrangements student nurses, in addition to receiving free tuition, board residence, uniforms and laundry, are paid small salaries under the Rushcliffe scales. These salaries are payable to them in virtue of their position as employees of the training hospitals and essential members of the nursing staffs. If in the future student nurses are to be treated as students and, instead of training being incidental to their work in the wards, the service they render to the hospitals becomes incidental to their training, the basis of their remuneration will call for reconsideration.

Methods of dealing with this question vary from country to country, in some cases taking the form of payment during training to all students as is the practice here now, and in others providing for payment only during the final period of studentship, or actually for the payment of fees by students to the training hospital.

158. An analogy is sometimes drawn between the financial terms offered to young women to train as nurses with those available for would-be entrants to the teaching profession. The intending teacher is assisted by the provision of free tuition in a Training College and also, subject to a parental contribution on an approved income scale, with board and residence in College or Hostel during term, or equivalent subsistence allowance. Actually, as will be seen, student nurses are offered much more favourable financial terms. But such an analogy is irrelevant if it is confined only to this aspect of the problem and does not take into account the type, hours and conditions of work and the future prospects of promotion in the two professions.

159. It is, however, sometimes suggested that student nurses training for the public health services should be regarded as in much the same position as intending teachers training to serve in the public system of education, and that there is no case for continuing any payment to student nurses when they cease to be employees of the hospitals. Indeed, the Horder Committee supports the principle that, when possible, the student should pay for her training; but with the proviso that no good potential nurse should be debarred from training through lack of money.

160. In our opinion the case for providing a grant to student nurses stands on its own merits. The fact is that we are faced with the practical and pressing problem of providing an adequate number of nurses of the type required by the community. In principle the case for the provision of training grants to student nurses rests, in part, on the services they will render during the course of their training, but, in the main, on what it is worth to the community to get nurses at all.

We are led to the view that the nursing needs of the community will not be met unless the training grant given to a student nurse is adequate to cover reasonable personal expenses (including on vacation), in addition to board residence or an allowance in lieu, and free tuition. The grant would be paid by the training authority. What modification, if any, in the present scale of payment might thus result we have not attempted to determine.

161. Finally, we would add a further observation to which we attach considerable importance and which is supported by views we have elicited from large numbers of nurses. What the nursing profession requires is, not so much slight changes in the size of grants paid during the relatively brief phase of training, but better training and wider career prospects with enhanced status and opportunities. Only by offering such a career is the profession likely to attract the candidates it needs.

162. We conclude :—

- (i) The finance of nurse training should be independent of hospital finance.
- (ii) The span of training in any day should normally not exceed eight hours, organised on a three-shift system.
- (iii) Measures should be taken to provide adequate teaching staff and facilities to meet all requirements of the course.
- (iv) All student nurses should continue to receive free tuition with board residence or an allowance in lieu, and a suitable allowance for personal expenses during the period of training.

CHAPTER XI

Selection of Student Nurses

163. The aim of initial selection is primarily to identify those candidates for nurse training who are unlikely to complete the course because of lack of ability or interest, or on grounds of unsuitability of personal qualities. Subsidiary aims are to make observations for purposes of re-classification later, if necessary, and to note those of high promise who are likely to profit from courses of advanced training.

164. It is clear from what we have said in chapter VII that we do not attribute training wastage solely to unsuitability of student material, but rather to the *interaction* of the student with the total environment, including its human aspects as well as the material conditions, in which she is expected to train. Possibly one-third or even, perhaps, a half of the wastage could be prevented by selection methods which would exclude those clearly unfitted for nurse training, though many might be suitable for ancillary work. Any further reduction would be a positive gain in retaining potentially good nurses, but could not be effected without bringing into being the other changes which we propose.

165. Even if the various causes of wastage now operating were to be reduced to the same level, there would still, however, be a tendency for some students to "waste" during training. These would be individuals who found it particularly difficult to adapt themselves to community life and conformity, possibly because they possess an unusually independent disposition, or others who are hypersensitive to the special material conditions—food, accommodation, social and recreational facilities necessarily associated with life in a community.

166. Two independent but converging lines of evidence have led us to the conclusion that there is need for better initial selection and it is important to

distinguish them if the procedure of selection is to be designed on the right lines. First we found, in following up and interviewing a sample of ex-students, that roughly one-third were apparently not fitted for nursing as a career, owing to *instability* or *unsuitability* of temperament, and should not have been accepted. With a proper technique of selection such candidates could probably be picked out at entry.

167. The second line of evidence emerges from our survey of the mental ability of hospital nursing staffs. We found that perhaps as many as 14 per cent. of student nurses fell into the lowest third of the population in respect of intelligence. It is difficult to believe that these students, whatever other admirable qualities they might possess, would pass the State examinations or, if they did, could carry out the duties of a trained nurse with due skill and responsibility. Certainly they are most unlikely to be able to pursue the proposed new training course successfully in the time envisaged.

168. This does not imply that we regard the present State examinations, by themselves, as a satisfactory criterion of nurse quality. Indeed, there is evidence from a special inquiry* which we have carried out that little or no relationship holds between State examination marks and assessments of nurse quality or proficiency made a year later by senior nursing staff of the hospital where the candidate is employed. Nevertheless, it must be conceded that the capacity to acquire the knowledge and skill needed for trained nursing, which is not necessarily the same as ability to pass the present State examinations, demands a level of intelligence superior to that of the lowest third of the population.

169. It may well be that the relatively large proportion of students unsuitable for nurse training on grounds of ability or personality was, at the time of our investigation, higher than it would be in normal peace-time circumstances. Many of the students tested or interviewed must have entered nurse training not spontaneously, or with any genuine interest in nursing as such, but simply as an alternative to other work of national importance. It would not, therefore, be surprising if they included a disproportionately large number of unsuitable types.

170. Perhaps a quarter of the student intake in recent years were unsuitable for nurse training, and this may be the upper limit to be expected at the entry stage. About half of these would appear to be temperamentally, and half intellectually unfitted for nurse training. It would be wise to exclude altogether from any form of nursing those who are temperamentally unsuitable. We suggest this because a significant proportion of those students who had abandoned training were found to be temperamentally unfit for nursing. Many, if not most, of those with low ability, on the other hand, either contrive successfully to negotiate the State examinations, or, if they fail, take up employment as Assistant Nurses.

171. Before the war, the standard of admission for student nurses laid down by the General Nursing Councils was the possession of a recognised educational qualification or success in the Councils' Test Examination, coupled with satisfying the hospital matron on interview. The Test Examination has been suspended for some time, but we understand it is now proposed to revive it in a modified form, to consist of an Intelligence Test, Elementary English and Arithmetic. This would be an undoubted improvement on past practice, but we believe

* A follow-up study of the subsequent nursing proficiency of a 10 per cent. sample of successful candidates for the State General Examination in April, 1945.

something rather different is needed, which will throw a more certain light on the personality of the candidate, on her stability of temperament and her interests and outlook generally. This can only be discovered by a skilled interviewer employing the type of questionnaires with which we have been experimenting. One or more intelligence tests should, of course, form part of the scheme. The candidate's level of attainment in English and Arithmetic can usually be ascertained from a knowledge of her educational background, the way the questionnaires are completed, and from the interviews. If there are doubts, supplementary tests could be used.

172. When discussing the present system of training, we pointed out (para. 121) that no finality could be reached, in advance, in regard to the hours "necessary" for learning the nursing skills now being taught. The "necessary" time would greatly depend on the *quality of the student material*. In other words, the time allowed for the course of training laid down, for each part as well as for the course as a whole, must be such as to enable the average student to acquire the necessary theoretical knowledge and practical nursing skill. This means that a certain minimum level of ability will be called for if the student is to profit from the training. It is now well established* that this capacity to respond to training can be measured with sufficient accuracy by means of mental tests, as widely used in education, industry, the Services, and by the Civil Service Commission.

173. During the recent war the Services successfully employed psychological methods of selection on a very extensive scale. The methods have been described in the "Report† of the Expert Committee on the Work of Psychologists and Psychiatrists in the Services". Fortunately, the material on which this Report was based has been available to us and was of great assistance in attempting to devise a fairly simple procedure of selection likely to reduce student wastage from the present rate of more than 50 per cent. of the intake to, say, about 15 per cent. A reduction of such magnitude has been achieved in other training spheres and we see no reason, provided the proper methods are used, why similar results should not be met in nurse training.

174. The provisional selection procedure which we suggest for use at the initial entry of students is thus based on accumulated knowledge and experience in other comparable fields. This procedure, though simple and straightforward, should only be employed by specially trained persons such as those employed for this purpose in the Women's Auxiliary Services. The procedure comprises:—

- (a) A careful interview by the personnel selection officer during which particulars are elicited concerning the candidate's educational and occupational background. This is supplemented by a specially designed questionnaire to throw light on the candidate's interests, stability, and suitability for nursing on personality and other grounds.
- (b) A questionnaire dealing with occupational preferences, "self-knowledge", and health.
- (c) One or more properly standardised tests of intelligence and, if necessary, of scholastic attainments.

* The development of mental tests owes its origin chiefly, perhaps, to the pioneer efforts of Alfred Binet in France and Sir Francis Galton in England towards the end of the last century. In 1924 the Consultative Committee to the Ministry (then Board) of Education surveyed the field in their *Report on Psychological Tests of Educable Capacity* (H.M. Stationery Office). Between the two wars, mental tests were extensively employed in the more advanced countries in educational and vocational guidance and in many other spheres.

† H.M. Stationery Office. 1947.

175. We have no evidence that it would be profitable at this stage to employ more special tests of aptitudes or skills. For example, the degree of manual dexterity required in nursing, which might be considered important, is probably widely distributed in potential nurse candidates, and only a small proportion of those with the requisite level of ability are likely to be too clumsy. The same applies in all likelihood to other aptitudes. Any visual, auditory or other sensory defects will be detected at the medical examination which is given every student on entry.

We have tried out this procedure on a fairly large scale with some hundreds of student nurses at Preliminary Training Schools in various hospitals. While it has not been possible to "validate" our judgments, we were satisfied that such procedure could work effectively.

176. One of the pre-requisites of a good selection procedure is a knowledge of the qualities desirable in those whom it is proposed to select. In the case of nurses we require to know what are the chief characteristics which make a good nurse. This is a question on which opinions may vary widely. In order to throw some light on the problem of the nature of nurse quality, we examined various reports prepared during the training of nurses, and singled out those qualities which occurred with the highest frequency.

177. We had at our disposal 132 Report Forms completed by ward sisters, assistant matrons and matrons at L.C.C. General Hospitals.* The sections completed by the ward sisters were studied and the frequency recorded of all the traits listed. It is reasonable to assume that a ward sister, in preparing a report on a student nurse, will reveal what are prominent in her mind as the important qualities required in a trained nurse.

The results are extremely interesting. The qualities mentioned in the reports more than 60 times are :—

<i>Qualities</i>	<i>Number of times mentioned</i>
Kind to patients	204
Interest in work	187
Reliable	177
Keen (or keen to learn)	137
Neat and tidy	113
Capable or intelligent	98
Conscientious	96
" Good " worker	78
Willing or anxious to please	76
Trustworthy	65

178. These qualities, we suggest, particularly the first few mentioned above, might provisionally be regarded as the more important ones to assess at the selection stage. Special "tests" might be devised for this purpose so as to make the assessments as objective as possible.

179. Adverse qualities were mentioned much less frequently than favourable ones. The most prominent were "slow worker" (64 times) and "requires supervision" (57 times), and in both cases the shortage of staff might well have been the underlying cause provoking the adverse comment.

180. We also carried out several experiments to throw further light on what are regarded as "nurse quality" and acceptable levels of ability. The procedure

* We should like to take this opportunity of expressing our thanks to Miss R. Dreyer, Matron-in-Chief of the L.C.C., for permission to study these reports and for much other help.

was to invite the matron of a hospital to write down in random order the names of the 10 "best" and 10 "worst" student nurses. It was explained that by "best" and "worst" we meant someone who would or would not be chosen to help during an emergency. The list of 20 names in random order was then submitted to the assistant matron and sister tutor respectively who classified them in turn into "best" and "worst", in the light of their own knowledge of the nurses. One of the interesting results which emerged was the discrepant judgments of the senior nursing staff, each viewing the student from a different angle. This strengthens the case for a system of trained and impartial selection.

181. In one of our studies, 41 students were interviewed and tested at a Preliminary Training School, and graded as "acceptable" (for student or assistant nurse respectively) or "not acceptable". The average level of intelligence of those "acceptable" as students was approximately the same as that found for trained nurses in hospitals; the average of those "not acceptable" was significantly lower. But low intelligence alone was not the deciding factor for rejection; those "acceptable" as assistant nurses were, on the average, only of a slightly higher calibre intellectually than those rejected as student nurses, but they were superior in qualities of personality.*

182. Several useful points which throw light on selection problems emerged from our interviews with student nurses. A few of the more important deserve mention here:—

- (i) Home and social background, and contact with nurses or with members of allied professions, are often influential in prompting girls to take up nursing.
- (ii) Well-adapted student nurses are often those with a liking for human contacts, for helping people, or for a communal life.
- (iii) On the negative side, the factor of disillusionment is important. A number of candidates for nurse training who later "waste" have a glamorised fantasy of nursing life. In the past, such fantasies have been cultivated in the Preliminary Training Schools and then rudely shattered on entering the wards; in the proposed new training scheme this need not occur. But candidates with pre-nursing "fantasies" should be carefully scrutinised.

* The results of certain past studies of personality in different occupational groups show promise of help in connection with our present problem. We refer to the scale for assessing masculinity and femininity, as developed by Professor L. M. Terman and his co-workers of Stanford University. Parts of this scale might be adapted for experimental use in a selection procedure for student nurses, though the results which were found to apply in the United States may possibly not apply quite in the same way in Great Britain. Practising nurses, as judged by these tests, tended to achieve more "masculine" scores than any female occupational group except teachers at secondary schools and colleges. This is intelligible in view of the fact that the task of a trained nurse involves a certain firmness and authority or leadership in handling patients and "controlling" a ward, and also a certain "toughness" in being unshaken by the sight of blood, wounds, surgical operations or death. In this respect they resembled other women whose professions involve a dominance of this sort. Yet this masculine quality can be, and often is, combined in the same person with a gentleness of disposition stressed in the L.C.C. ward reports. The need to find an optimal blend in one and the same person, of these apparently contrasting qualities, makes the selection of nurses a task of some complexity.

A further result of some interest emerged from the American inquiries. In respect of these masculine and feminine qualities of personality practising nurses and domestic servants stood at two opposite ends of the scale, the nurses at the masculine, and the domestics at the feminine end. This may explain why the attempt to burden student nurses with nursing and domestic tasks calling, apparently, for diametrically opposed qualities, breaks down in the form of wastage during training.

183. *Recruitment.* It remains to say something on the question of recruitment. It appears to us that the recruitment of candidates for nursing is a secondary task : the primary task is to remove the deterrents to recruitment which are much the same as the causes of training wastage.

184. While no doubt the publicity campaigns that have been conducted have brought in a considerable number of candidates, we take the view that there is considerable risk in endeavouring to attract candidates for training in unpopular institutions. The difficult training and working conditions in hospitals are well known, and persistent appeals to enter nursing depicted as an attractive and even glamorous career are likely to be received with a certain degree of suspicion. So long as the causes of wastage are operative, such campaigns may tend to defeat their own ends. A girl who abandons nurse training is likely to become a counter-recruiting agent, and the greater the wastage, and the longer the period it continues, the more powerful will this cumulative counter influence become. The problem to be dealt with is not how to fill a leaking vessel but how to stop the leak.

CHAPTER XII

Organisation and Administration

185. This chapter is rather different from the earlier ones in that it does not rest in the same way on a factual basis. It embodies an attempt, given that the new training plan is acceptable, to indicate an administrative machinery which we think might be found capable of putting the scheme into effect, though it might need modification when the effect of the changes to be introduced by the Act become clearer.

186. *Nurse Training Units.* The scope of the new system of training envisaged by us is beyond the capacity of any one of the "complete" schools now approved for general training. Many of these large hospitals, irrespective of type, may well serve as key institutions in the new scheme, but it will be necessary to associate with them hospitals of other types and a variety of public health agencies so as to cover the whole field of nursing experience and training. Hospitals and public health agencies will together form a composite training unit. The nearest parallel is perhaps to be found in the Schools or Institutes of Education now being formed for the training of teachers, which will associate university training departments, independent training colleges and other educational facilities in a single entity. At different stages of the course student nurses may pass from one hospital to another for particular phases of training ; they will therefore be students of the training unit rather than attached to a particular institution.

187. *Staffing of Units.* The organisation of the training in each unit would be under the charge of a Director or Principal assisted by an adequate staff, some of whom may be employed full time on training, having their headquarters at the key institution, while others would be members of the staffs of hospitals and public health agencies within the units who would assist with training only part time,

and largely in the course of their work. A very close liaison must be maintained between the Director or Principal of the training unit and the matrons of the hospitals. Teaching resources of the several institutions forming a training unit would be a common pool, and full-time teachers made mobile so far as necessary to ensure the best qualified instruction in the various subjects of the curriculum. It will be one of the responsibilities of the tutors attached to the training unit to teach students during their practical work. But it will be impossible for tutors to be in continuous session with the same group of students. Therefore, to ensure continuity of teaching and supervision, it will be essential for ward and departmental sisters to retain a distinct teaching function. It follows, therefore, that an aptitude for teaching must be taken into account in selecting sisters in charge of departments of training units to which students are assigned.

188. Under existing circumstances it will not be possible to secure any immediate widespread development of training units on the lines suggested. The transition from one system to the other can only be gradual, as conditions permit. But every effort should be made to set up in every Region,* as soon as possible, at least one training unit of the type proposed. This unit should be provided with the best available teaching staff and facilities. Other training units in the Region, as they can be brought into being, will undoubtedly profit from the efforts of the pioneer unit.

189. *Regional Organisation.* Circumstances will dictate the number and size of training units which any one Region can provide. The number and size of hospitals in the Region, the accommodation available for student nurses, and the clinical and classroom facilities that can be provided will all have to be taken into account when the training units are planned. Each unit should be located in a community large enough to possess well-organised public health services which offer material for experience in community health service.

190. At this juncture we would suggest that there should be, in the future, two sub-divisions of nursing administration, one to organise the nursing services to the community, the other to organise recruitment and training. These sub-divisions, though distinct, require close liaison for their proper development. We assume, of course, that the administration of the nursing services would follow the pattern of administration of the health services as a whole, and that the views of the nursing profession would be given adequate weight at all levels of administration.

191. The organisation of the nursing services to the community, *i.e.*, of qualified nurses in all fields, would be the proper function of the Regional Hospital Boards, Hospital Management Committees, Boards of Governors of teaching hospitals and Local Health Authorities.

The organisation of recruitment and training would require a more specialised machinery. Each training unit would have its education committee comprising representatives of the teaching staff, hospital matrons and governing bodies of the institutions and health agencies comprising the unit, with power to co-opt members interested in education, particularly nurse education.

192. A Regional Nurse Training Board or Committee would need to be set up to co-ordinate the work of the various units in the Region. Its members would include representatives of the Regional Hospital Board, Board of Governors,

* The term "Region" here refers to Hospital Regions under the National Health Service.

Hospital Management Committees and Local Health Authorities as well as representatives from the nurse education committees of the training units in the Region. It should have powers to co-opt members from University and other educational bodies. The duties of these Boards may well be so extensive as to require a permanent staff to carry them out, and it may be advisable to appoint a Regional Director of Training for one or more Regions, according to size, to ensure uniformity of training and of training opportunities within the Region.

The principal duties of the Regional Nurse Training Boards would include :—

- (i) planning and co-ordination of facilities for training;
- (ii) co-ordination of standards of admission and allocation of students;
- (iii) approval of supervisors;
- (iv) formation of Advisory Centres.

These functions are elaborated below.

193. The first duty would be to plan and co-ordinate, in conjunction with the appropriate authorities, the nurse training facilities in the Region. We would suggest that, in the initial stages at any rate, some help may be required in implementing a scheme on a scale and by methods not attempted before, in order to ensure that training units, adequate in number and quality, are made available and fused into a national training system. Such help might be provided by a small and, if need be, specially appointed body from the Nursing Divisions of the Ministry of Health and Department of Health for Scotland. This small central body or training council would only function until training units were planned throughout the country.

194. The work of this body would lie in the field rather than in the office. It would create and maintain liaison with Regional Nurse Training Boards and would advise as regards welding the training facilities available locally into suitable and adequate regional training units. Equally important would be its guidance in so framing regional nurse training policy as to fit into a national scheme. It is not suggested that this central body should dictate local policy to the Regions. On the contrary, we consider it essential that Regions should preserve their individual initiative in, and be made entirely responsible for, the conduct of their training schemes. But in the initial stages of planning it is almost inevitable that gaps or overlapping in certain training facilities will be found in some areas. We imagine that help from a central body in indicating how burdens can be spread evenly would be welcomed by the Regions.

195. Co-ordination of standards of admission of students and their allocation to different training units would also be the concern of the Regional Training Boards. This would in no way prevent any candidate from expressing a preference for training at a certain unit in any Region. Provided there is a vacancy at the unit of choice, and no good reason for deciding otherwise, no candidate should be debarred from entering the unit of her choice and with which she may already have made contact.

196. Yet another function of the Regional Nurse Training Board would be to approve as supervisors for the year of supervised practice senior members of the staff of employing bodies, whether hospital or public health, to whom would be delegated responsibility for reporting on nurses during their third year, and before registration is confirmed. An appropriate form for such assessment and report would need to be employed.

The formation of Advisory Centres on nursing would be a further regional responsibility. These would deal with enquiries from potential nurses and advise them, and would undertake the task of stimulating interest in nursing and encouraging the flow of candidates by arranging for talks and visits to hospitals and health centres.

197. *Central Organisation.* The training units will be organised within each Region and Regions must clearly be centrally co-ordinated. It is presumed that Standing Advisory Committees for Nursing will be set up by the Ministers concerned in addition to the Central and Scottish Health Services Councils. These Standing Advisory Committees will advise on (a) the general administration of the nursing services, and (b) the organisation at the national level of the system of training. This would include the determination of national standards for the admission and training of students.

198. There already exists a Division of Nursing at the Ministry of Health and at the Department of Health for Scotland. These Divisions will need to be strengthened so as to administer effectively, with the assistance of the Advisory Committees, the nursing services of the community and supervise generally the progress of nurse education. Such an arrangement would call for the appointment of an Adviser on Nursing Education to the staff of the Chief Nursing Officer. One of the functions of the Divisions of Nursing will be the approval and inspection of training units, to ensure that the system of training, for which the Divisions will be ultimately responsible, is effectively carried out. Inspection would be the task of a full-time inspectorate with duties analogous to those of the inspectorate of schools under the Ministry of Education and the Scottish Education Department respectively.

199. *Headquarters Research Units.* We are impressed by the necessity for further and continued research work into all aspects of nurse training. Headquarters Research Units should, we suggest, be set up at the Ministry of Health and at the Department of Health for Scotland to initiate and co-ordinate the research work still waiting to be done. The primary function of the headquarters units would be to provide technical advice to the Ministers concerned on matters of policy affecting any aspect of the work and life of the nursing profession, including recruitment and training. The experimental centres referred to below would act as "laboratories" for the headquarters unit to conduct its enquiries.

200. *Experimental Centres.* The radical changes proposed will necessarily produce a number of educational, administrative and other problems. We suggest that such problems could best be studied in training units specially organised as experimental training centres serving as "laboratories" for the headquarters units referred to above. The idea of such centres is not new and has already been accepted in other spheres where comparable problems exist. The institutions we have in mind would also act as observation centres where the effects of various developments, which cannot now be foreseen, might be carefully assessed. Here, new selection and training methods could be devised and evaluated before launching out on a wider scale and the practical implications of student status and its effects on staffing arrangements could be observed.

The proposed centres would be suitable places in which to carry out the necessary research before any finality can be reached as to the hours required for learning specific nursing duties, and as to essential subjects for inclusion in basic

training. Research into these and other matters must be continuously sustained if nurse education is to keep pace with developments in medical research and changing social needs.

We would emphasise that the new scheme of training is put forward only as a working basis. As implied in Chapter I, the content of nurse training should strictly be determined by one central criterion, namely, the extent to which *items of training contribute to reduce the incidence or duration of sickness*. It is only by research on these lines that the proper content of nurse training can eventually be established, and it is only in an experimental centre that such research could be planned.

201. *Present Statutory Bodies.* At this stage it becomes necessary to review the functions of the existing governing bodies of the nursing profession. The General Nursing Councils, for England and Wales with 25 members, and for Scotland with 15 members, set up by the Nurses' Registration Acts of 1919, are charged with the duty of maintaining a General Register of Nurses and various Supplementary Registers, with powers to fix standards (through examinations) for admission to the Registers, and to remove nurses therefrom. We assume that the General Nursing Councils would continue to be responsible for examination, registration and discipline. Examination involves the determination of syllabuses. While the content and standard of nurse training are primarily the responsibility of the profession itself, we are of the opinion that the approval of syllabuses by the Health Departments should continue as at present.

202. The General Nursing Councils are not, however, favourably placed to lay down and implement an educational policy for the nursing profession: they have very little educational representation and no counterpart to the academic representation on the General Medical Council. Such extensive academic representation would not be necessary or appropriate in the case of the Nursing Councils, but on general grounds, and particularly if there is an extension of the "post-graduate" nurse education already sponsored by a few of the Universities, some university representation would appear desirable.

203. Setting aside Government representation on the Councils, it is when one comes to consider the status of the remaining members, and the manner of their election, that the weakness of the present constitution is exposed. These members, and they are a majority on the Councils, are elected by the whole body of nurses "registered at the date of election". Since the Acts became operative great changes have taken place, not the least being the large growth of the Registers, both General and Supplementary. The electorate has increased enormously, added to which is the fact that considerable numbers of nurses on these Registers have a vote, though no longer practising nursing in any field. It is true that an attempt has been made to allocate seats to candidates from the various Supplementary as well as the General Registers; nevertheless, the voters called upon to elect the members representing the majority on the Councils can have but little, if any, knowledge of most of the candidates. In our visits to hospitals throughout the country this weakness was frequently referred to by different types of hospitals. The prevailing impression in England and Wales seemed to be that matrons of large voluntary hospitals, particularly from the London area, preponderated unduly, while municipal hospitals and the public health fields were insufficiently represented. In short, the existing machinery fails to ensure that the different fields of nursing, either functionally or geographically, are adequately and proportionately

represented. If the Regional organisation is accepted, we are of opinion that regional representation on the Council is indicated. Such a relatively restricted electorate would know better for whom they were voting and a further advantage would be that members of Council could consult their constituents.

204. *Amalgamation of General Nursing Councils.* It appears to us that in order to ensure a uniform standard of nurse training throughout the whole country there should be set up one governing body covering all fields of nursing in England, Wales and Scotland. This General Nursing Council for Great Britain should include, in addition to Government representation and nurses elected on a regional basis, a due proportion of university and other educational representatives.

205. *A General Council for Nurses and Midwives of Great Britain.* We desire to submit a further alternative suggestion, though only tentatively in view of the formation of a Working Party charged specifically with the duty of reporting on the midwifery services. As was stated in Chapter IX, paragraph 142, we found it impossible to review the whole field of nursing without giving some consideration to midwifery, and we came to the conclusion that it might be possible to provide a course of training in midwifery in the same time as would be required for any other special field. If that suggestion is deemed worthy of consideration a further degree of integration might be envisaged.

206. The Midwives Acts passed in 1902 and 1915 set up Central Midwives Boards for England and Wales with 14 members, and for Scotland with 16 members. Their duties and powers in respect of midwives are similar to, though in some ways wider than, those of the General Nursing Councils.

The integration of midwifery with general training, which the system we propose might render possible, would have the advantages of creating equal status of nurses and midwives, of encouraging mobility between midwifery and other nursing fields, and of equalising the prospects of promotion. It seems to us that the adoption of this scheme would call for a unification at the highest administrative levels by combining the General Nursing Councils and the Central Midwives Boards. Apart from the economies in teaching facilities and staff which might be effected, the interlocking of the two fields at so many points would require a single administrative machinery to operate both.

207. If the unity of the nursing and midwifery services is a desirable national objective—as we believe it is—it appears to us that the advisability of setting up one governing body, in place of those now existing, to cover all fields of nursing and midwifery in England, Wales and Scotland, merits consideration. Such a body should include, in addition to governmental representation and nurses and midwives elected on a regional basis, a due proportion of university and other educational representatives, and might be called the General Council for Nurses and Midwives of Great Britain.

208. We conclude :—

- (i) In each Region, hospitals and public health agencies should be grouped to form nurse training units.
- (ii) Arrangements should be provided at regional levels to co-ordinate both nursing services and nurse training facilities.
- (iii) The Divisions of Nursing at the Ministry of Health and Department of Health for Scotland should be enlarged to include Advisers on Nursing Education with inspectorates of training.

- (iv) National Standing Advisory Committees on nurse training should be established.
- (v) Headquarters research units and experimental centres should be set up with the tasks assigned in paragraphs 199 and 200.
- (vi) The General Nursing Councils for England and Wales and for Scotland should be combined in one General Nursing Council for Great Britain.
- (vii) The possibility of forming one governing body to cover all fields of nursing, including midwifery—a General Council for Nurses and Midwives of Great Britain—merits serious consideration.

CHAPTER XIII

The Effects on Staffing of Converting to a Three-Shift System and Student Status and the Problem of Assessing Future Nursing Requirements

209. *Effects of a Three-Shift System.* In our analysis of the causes of wastage, we reached the conclusion that, if wastage during training is to be reduced from some 50 per cent. of intake to a reasonable figure, then, among other changes, a three-shift training day must be introduced. This innovation we found was no less urgent from the point of view of the trained nurse in hospital, inasmuch as only under a three-shift system would her working day approximate to the "normal", and one of the chief sources of discontent thus be eliminated. In view of this, it becomes necessary to estimate, even though only approximately, the effects of converting to a three-shift working day on requirements of trained nursing staff.

210. Thirty-five representative training hospitals and two public assistance institutions were invited to submit particulars on an appropriately devised questionnaire, showing (a) the number of each grade of nursing staff employed under the present "split-day" * system and (b) the number estimated to be required to operate a three-shift system.

It was explained in a covering note, first, that a generous assumption should be made as to the availability of staff, both nursing and domestic; secondly, that full allowance should be made for the adequate teaching of the student nurse; and thirdly, that it should be assumed that there were no financial restrictions. Any hospital that had already adopted the three-shift system was invited to send comments on the success or otherwise of the scheme.

211. The types of hospital to which the questionnaire was sent and the number of usable replies are indicated in Table XXVI. The hospitals were all reputed to be efficient institutions and included some in London, the provinces, Wales and Scotland.

* *i.e.*, a working day with a *span* of 13 or 14 hours from, say, 7.0 a.m. to 8.0 or 9.0 p.m. with two hours or so off duty in the course of the day.

TABLE XXVI
Hospitals to which questionnaires were circulated

Hospital	Number Circulated	Usable Replies Received
General—		
Voluntary	13	10
Municipal	8	6
Mental	6	—*
Infectious Diseases	2	2
Tuberculosis Sanatoria	6	3
Public Assistance Institutions	2	1

* Four mental hospitals already had a three-shift system and hence could not provide the comparative information required in the questionnaire. The remaining two apparently could not undertake the work of completing the questionnaire.

212. It is possible, by comparing the present ratio of nurses to beds with the ratio estimated to be necessary under the shift system in these hospitals, to form some idea of the effect on staffing requirements of changing from one arrangement to the other. For this purpose it will be helpful if we assume that the training period is reduced to two years, as proposed in Chapter IX, and to regard third and fourth year students as representing trained nurses.

213. With this adjustment, the general hospitals in the sample completing the questionnaire would seem to require about 30 trained nurses per 100 beds (covering both wards and departments) to operate a three-shift working day. This is an average for both voluntary and municipal general hospitals, and represents an increase of about 50 per cent. for the former and some 85 per cent. for the latter. The numbers apparently required by the various types of hospitals completing the questionnaire and the percentage increase over the present system are shown below.

TABLE XXVII
Estimated trained† nursing staff per 100 beds required in a three-shift system*

Hospital‡	Wards	Departments	Total	Percentage Increase over Present System
General—				
Voluntary	24.5	10.3	34.8	50
Municipal	22.5	3.1	25.6	85
Infectious Diseases	33.4	12.4	45.8	106
Tuberculosis Sanatoria	12.3	4.0	16.3	73
Public Assistance Institutions	12.8	1.2	14.0	66

* The figures are averages of estimates made by the hospitals completing the questionnaire.

† Including third and fourth year students.

‡ All except the chronic sick hospitals are training schools.

214. The estimates of the number of trained nurses so required, as given by the hospitals, were by no means uniform: there was appreciable variation not only between different types of hospital, but also between hospitals of the same type.

Thus, the demands of the *voluntary* general hospitals ranged from 23 to 58 trained nurses per 100 beds, including wards and departments, while for wards alone, the figures ranged from 21 to 32 trained nurses per 100 beds as compared with 15 to 34 in the *municipal* general hospitals.

215. The data so obtained seem to us too limited and too uncertain to make it possible to frame any but the most tentative estimate of the number of additional trained nurses required to operate a three-shift system over the whole hospital field. On the basis of the questionnaire results it would seem that the number of trained nurses in general hospitals* should be increased from 23·3 to 36·1 thousand, *i.e.*, by some 13,000 nurses, and in infectious diseases hospitals from 3,000 to 6,000. On the other hand, it seems reasonable to suppose, having regard to the difference to be covered between the present normal "span" and the "shift" period of duty, that an increase of staff nearer one-third should suffice. On this latter basis the increase necessary in general hospitals might be put at about 8,000 trained nurses and in infectious diseases hospitals at 1,000. Our questionnaire did not cover maternity hospitals where the present trained staff are estimated to number 3,000; provisionally it may perhaps be assumed that a further 1,000 trained nurses would be required. We are very conscious of the wide range of the figures above suggested, and it may well be that actual requirements may be found to be somewhere between the two—tending if anything to the higher figures having regard to the pressure under which so many nurses are now compelled to work. So far, therefore, as the hospitals in question are concerned, we think that the minimum addition of trained staff required is unlikely to be less than 12,000 and may exceed that figure.

216. There remain to be considered the mental hospitals, sanatoria and public assistance institutions, where in the case of the last two categories our returns indicate increases of 73 and 66 per cent. respectively. Here again we view these suggested increases with considerable doubt, involving as they would an addition to staff of between 14,000 and 15,000. We believe the figure might prove to be more of the order of 7,000 to 8,000. There is, however, another consideration which must be kept in mind. So far as we have been able to judge it seems likely that any increase of nursing staff required to operate the three-shift system in these three types of institution need not consist wholly, or even largely, of trained nurses. In all three fields there would seem to be room for a considerable extension of the use of personnel that might appropriately be termed "nursing orderlies"† or "nursing aides". It is possible, therefore, that the needs of these institutions might be met by an addition to staff of 8,000, of whom only a proportion would be trained nurses.

217. The conclusion then that we reach, though we give it only with the greatest reserve, is that to operate the three-shift system in hospitals, on the basis of existing provision, will call for a minimum addition to the nursing strength in hospitals of from 12,000 to 14,000 trained nurses and some 6,000 to 8,000 nursing orderlies.

218. *Effects of introducing student status.* No less dubiety surrounds the question of the number of additional nurses required to make possible the

* All hospitals other than mental, maternity, infectious diseases, tuberculosis and public assistance institutions; and assuming an increase of 30 per cent. in the trained staff of non-training general hospitals.

† See Chapter XIV.

introduction of student status in training schools, involving, as it will, the elimination of repetitive nursing work from the training course, beyond that required for training purposes. Estimates made of the figure for this addition range from some 4,000 to 15,000 trained nurses and suggest that some 5,000 additional nursing orderlies would also be needed.

219. In the result, we do not think it safe to say more than that the additional staff required to give effect to these two changes over the whole hospital field as it now exists cannot be less in total than 22,000 to 24,000 trained nurses, and some 14,000 nursing orderlies.

220. At the end of December 1945 the total number of trained nurses in hospitals, public health and other fields, including the Armed Forces, was approximately 88,000. The annual wastage rate of trained nurses in the profession as a whole is about 10 per cent. Simply to maintain the strength as it stood at December 1945 demands, therefore, an annual intake of newly qualified nurses of some 9,000.

221. While no doubt better student selection would reduce student wastage appreciably, this will be felt rather in a reduction in the number of new entrants by the elimination of unsuitable candidates—possibly one quarter—before they embark on training. Wastage of students, who are not unsuitable on grounds of temperament or lack of capacity, can, in our view, hardly be materially lessened until the major changes in training we propose have become effective.

222. If, as we hope may be found possible, annual intake could be maintained at a figure of 20,000 *suitable* recruits, the number of trained nurses entering the profession each year might well rise to 15,000, yielding a margin over replacement for some time of not less than 5,000 to 6,000 a year. If all these could be devoted to providing the staffing necessary to secure the three-shift day and student status, the additional force required of say 24,000 trained nurses could be built up in five years.

223. This would raise the trained nursing force from 88,000 as in 1945 to 112,000, the normal wastage on which would not exceed 12,000, and might be reduced if under better conditions the nurses' working life tended to lengthen. On the other hand, under a reformed system of training we anticipate that student wastage would fall from its present wholly excessive height to a figure not exceeding 15 per cent. If this assumption proved correct an annual intake of 14,000 students should produce sufficient nurses to meet the increased replacement rate of 12,000 a year.

224. These calculations, however, are directed solely to finding the additional staffing in terms of trained nurses necessary to give effect to our proposals, and take no account of the increase of staff required to allow of any expansion of the nursing services. No doubt the surplus or margin of training output will have to be allocated as between these two objectives, and the process of making our proposals effective, if they are adopted, will perforce occupy a longer period than five years, though the longer that process takes, the longer will many of the problems now presented by the nursing services continue and progress and expansion will be proportionately slowed.

225. The situation is one that demands the removal of all restrictions on the employment of married persons in the nursing services; the development of part-time service, and the extension of the use of male nurses.

226. Although there is no invariable rule to the effect that the marriage of a nurse is a bar to her continuing the practice of her profession, at present it constitutes an almost insuperable bar to institutional nursing. Less than 10 per cent. of trained nurses in hospitals are married. During the late war the re-employment of married nurses, not only in this country but likewise in Canada and the U.S.A., was no inconsiderable factor in maintaining hospital and other nursing services in the countries concerned. Nevertheless, in the majority of hospitals today marriage entails automatic resignation, so that in the public mind the nursing profession is regarded as celibate. We consider this most unfortunate, reacting adversely on the community, the nurse and the potential nurse alike. Much of the insularity of outlook and many of the conventual traditions found in hospital life would be favourably affected by the explicit removal of this bar, while the effect on recruitment would be nothing but helpful. The outlook and balance produced by a physiologically satisfactory life are characteristics as desirable in nursing as in any other profession.

It is not suggested that to make it easier for married women to serve would altogether prevent resignation on marriage in many, if not most, cases in the future as in the past, but we do suggest that, if a married woman wishes to continue nursing, every effort should be made to enable her to do so.

227. Considerable use could be made of married nurses on the lines of the part-time nursing scheme in operation at the County Infirmaries of Gloucestershire and elsewhere, a system which has made available many women of wide nursing experience. The universal institution of the shift system would facilitate this innovation.

228. It will also be necessary to expand as much as possible the scope of employment of male nurses and orderlies, and to use part-time workers on a much larger scale than hitherto.

Nursing has always been regarded as more or less the exclusive province of women except in the Services and in the mental field. Only in the latter have the higher posts been open to male nurses, and even then not always the highest posts.

229. We suggest that all nursing posts should be thrown open equally to males and females. Experience in the Services and elsewhere has shown that there is no valid reason for sex distinctions and we do not find it incongruous that a male nurse of suitable personality, with the necessary qualifications, should be eligible for appointment as superintendent of nurses. In the few general hospitals where we have encountered male nurses (generally in the male genito-urinary wards) during the course of our inquiries, there were no signs of difficulty in the two sexes working side by side, and junior nurses of either sex freely volunteered the information that the sex of the higher authority under whom they were working made no difference. But the success of such a scheme which is a departure from recognised practice will depend on the reaction of the profession and the public.

One difficulty in increasing the number of male nurses is lack of adequate accommodation. They need separate quarters and other facilities if they are to be resident. Even more than female nurses, male nurses have a strong preference for the shift system. A shift system is indeed the only arrangement which would permit a married male nurse to preserve a normal family life.

230. A considerable increase in the number of trained male nurses with the basic comprehensive training we propose might also do much to fill gaps as necessary in the scarcity fields. The nursing of tubercular patients and also the chronic sick frequently present the type of "heavy case" requiring great physical strength as well as nursing skill; and for such work male nurses are eminently suitable.

231. We were asked to estimate, if we could, the requirements for trained nurses of the National Health Services when fully developed. We invited the employing authorities in the various nursing fields to state, if they could, the number of trained and other nurses they expected, or would desire to employ, at the end of 1950, but no results of any consequence were obtained. So far as the further future is concerned it is not surprising if no forecast can be made. The target is inevitably a shifting target depending on the relative progress made in curative and preventive measures and the advances of medical science.

232. Attempts have been made to arrive at the number of nurses needed for hospitals by assessing the number of beds required on a population basis. Such assessments, however, show considerable variation. A report issued by the Royal College of Physicians* suggests that some four beds per thousand of the population are required for acute cases in general hospitals. On the other hand, the parallel estimate of the Department of Health for Scotland† is from four or five to as many as eight beds, according to the density of the population in the area. It appears unlikely, therefore, that this approach can offer any satisfactory basis on which to frame an estimate of hospital staffing requirements.

233. Faced by such divergence of view we are forced to the conclusion that the requirements of the National Health Services now to be established have not as yet been assessed in terms of manpower, probably because at present they cannot be so assessed.

234. It seems safe to assume, however, that they will involve a substantial increase in the present trained nursing strength of the country. We have estimated, though only very tentatively, that the trained nursing force of 88,000 (as in December 1945) must be raised, as a minimum, to not less than 112,000, if our proposals for a three-shift system and student status are accepted. It is said that at present there is an immediate shortage of between 9,000 and 10,000 trained nurses, including midwives. To provide properly for existing needs and for the training reforms we have proposed, would seem to require a trained nursing force of not less than, say, 120,000 to 125,000. What additional trained staff might be required for the expansion of the National Health Services it appears to us to be impossible at present to determine. This question cannot be dissociated from the wider question of the right allocation of the nation's man-power resources, a question that we have not felt able to pursue.

* "Report of the Paediatric Committee of the Royal College of Physicians", 1946.

† See "General Introduction to the Reports on Scottish Hospitals Survey". H.M. Stationery Office, 1945.

CHAPTER XIV

The Assistant Nurse

235. The statutory title "Assistant Nurse" came into being in 1943 with the passing of the Nurses Acts, which provided for a State Roll of Assistant Nurses. Until the end of 1948, the Roll is open to those with certain nursing experience, but after that, only to those who have been trained in an approved training school and have passed the tests prescribed by the General Nursing Councils.

236. The period of training* prescribed by the General Nursing Councils is two years, of which four weeks must have been spent in a Preliminary Training School, and not less than one year in the nursing of the chronic sick. An examination at the end of two years is to consist of a simple written test and a test of practical efficiency.

Most of those on the Roll of Assistant Nurses have gained admission to it by virtue of fairly extensive nursing experience without necessarily any formal training. Some, however, have undergone some period of General or Supplementary training, but have withdrawn before completing the course, or have failed in the examination for State Registration.

By the end of 1946 about 27,300 nurses were admitted to the Roll. In addition, many other applications for admission to the Roll had been received by that date and the majority of these are expected to be successful.

237. There is no doubt that, without the Assistant Nurse, the nursing services of this country would long ago have broken down; especially institutions for the chronic sick, where the bulk of nursing care is being undertaken by Assistant Nurses. Although we have no figures to support this statement, it would seem probable that the normal wastage of Assistant Nurses is not being counter-balanced by a sufficient number of new entrants. Efforts are being made to set up Assistant Nurse Training Schools, but, in spite of this, there were only 554 pupil Assistant Nurses in training in February 1947, and even the existing schools are by no means filled to capacity. Hence the present position is giving rise to grave concern.

238. It is held by many that the limitation of the Assistant Nurse's activities chiefly to the sphere of the chronic sick, which debars her from wider opportunities of promotion, is the main obstacle to recruitment. Indeed, the Report of the Nursing Reconstruction Committee (see Section I, *The Assistant Nurse*) advocated that the Assistant Nurse should be used in other fields of work (e.g., factories,

* The Assistant Nurse syllabus of the General Nursing Council is essentially simple and consists of six parts as follows:—

Part

- I.—Introduction.
- II.—Body structure and functions, nutrition and elementary hygiene.
- III.—First-aid.
- IV.—General nursing—care of patients, nursing procedures and handling of equipment.
- V.—Nursing duties during illness; main features of disease.
- VIA.—Nursing and care of patients suffering from pulmonary tuberculosis.
- VIB.—Nursing and care of patients suffering from infectious diseases.

Parts VIA and VIB are applicable respectively to those pupils who spend part of the period of training in a hospital or sanatorium for the treatment of pulmonary tuberculosis, or in an infectious diseases hospital.

health clinics, nursing homes, tuberculosis and other special hospitals) and envisages her as "one of the most stable elements in our national health service".

239. The basic problem is whether or not it is necessary to employ an ancillary nursing service comprising persons who, for the purpose of the duties assigned to them, do not require the training of the recognised State Registered Nurse.

240. This question does not arise in Britain alone. In many countries there exist categories corresponding to the Assistant Nurse under a variety of names; for example, the Practical Nurse in the U.S.A. and Canada, the Nursing Aide in New Zealand, Sweden and Denmark, the "Help" Nurses in Finland, etc. In some countries these grades have had no formal training under the supervision of the trained nurse; in others, there is definite preparation, the period varying from two months to two years. Some countries are now planning to initiate Assistant Nurse training because of the alleged need for some subsidiary nursing body, and the fact that such grades as "Assistant Nurses" (without any training or acknowledged status) are already employed. The general conviction in these countries seems to be that an "Assistant Nurse" should have some training of a practical nature, but that it should be of shorter duration than that of the trained nurse. The wide disparity in the length of the training period advocated is clear evidence that no satisfactory and universally acceptable solution of the problem has yet been reached.

241. *Present employment of Assistant Nurses.* Few Assistant Nurses are employed in voluntary general training hospitals; in municipal general training hospitals where they are employed, it is principally in wards set aside for the chronic sick. In general non-training hospitals the situation is different. These hospitals are smaller, and the type of patient admitted is generally less in need of the highly skilled surgical or medical treatment provided at the larger training hospitals. There are few resident doctors and consultants. Here the Assistant Nurse discharges duties often very similar to those of the State Registered Nurse.

242. No Assistant Nurses are employed in mental hospitals and the "Report of the Sub-Committee on Mental Nursing and the Nursing of the Mentally Defective," (H.M.S.O., 1945, paragraphs 149-157) recommends strongly against their employment. The objection of that Committee lies in the alleged fundamental difference between nursing in a general hospital and nursing in a mental hospital. They point out that "in a general hospital the course and development of an illness can, within limits, be accurately foreseen and nursing duties assigned accordingly. Moreover, an Assistant Nurse in a general hospital can normally expect that, when carrying out her routine duties, she will receive the co-operation of her patients or, at the very least, will not meet with active obstruction. This is not the case in a mental hospital. The type and quality of the nursing required are determined by the patient, not by the medical staff or the nurse in charge of the ward." A further practical difficulty advanced by the Committee to the employment of Assistant Nurses in mental hospitals is the same as that put forward by the voluntary general training hospitals, *i.e.*, the difficulty of carrying out two kinds of training in the same institution.

243. Nevertheless it should be pointed out that, while the ultimate objective of the mental hospitals is to provide a staff consisting only of fully trained nurses, there are employed in many of these hospitals a certain number of "Nursing Assistants". The majority of these have gone through at least a three years'

course of training for certification or State registration and, although they have failed to pass the final examinations, they are retained in the service because the employing authority is satisfied of their competence as practical nurses. Nursing assistants of this type would of course automatically disappear if it were possible to staff all mental institutions adequately with fully qualified nurses.

244. It is in hospitals for tuberculosis, infectious diseases and the chronic sick that the majority of institutional Assistant Nurses are employed : these institutions owe their continued existence as functioning units to-day very largely to the Assistant Nurse.

245. *Two schools of thought.* There are two schools of thought regarding the future of the Assistant Nurse. The first holds that the introduction of assistant nurses was a retrograde step, no more defensible than would be the reintroduction of assistant doctors permitted to practise, a system long since abolished, and that all duties directly connected with the patient should be performed only by a State Registered Nurse, relieved entirely of domestic duties by ward maids or ward orderlies. The second school, while fully accepting the need for ward maids, holds that there will always be scope for some other subsidiary or auxiliary nursing grade to supplement the work of the trained nurse. They consider that much of the repetitive work now being done by student nurses must fall to some other person if students are to use their training time with maximum profit. They also consider that the performance of purely routine and repetitive tasks by State Registered Nurses is wasteful of the time of skilled personnel and therefore not in the national interest.

246. Our own view is on the whole largely in line with that of the second school, though we cannot accept the suggestion that the trained nurse should be absolved from all repetitive work. Every profession has certain routine duties to perform of a repetitive nature. No teacher in a school or University would protest against repeating lessons or lectures to different classes on the ground that this would be "sheer repetition". It might be so for the teacher, but not for the pupils. Likewise, doctors accept the task of routine repetitive duties with different patients ; the duties are repetitive only as far as the doctor is concerned, but not for the patients. Precisely the same principle should hold in the case of nurses.

247. It is clear that for some time to come, owing to the shortage of trained staff, it will be essential to continue to use the services at least of those Assistant Nurses now recognised and employed. Such evidence as we have been able to obtain points to the fact that useful service can be rendered in the nursing of mental and tubercular patients, and probably also of fever patients and chronic sick by persons who are not fully trained nurses.

248. We have reached the conclusion that in hospitals of all types, though in varying degrees, there is room for the employment, in addition to the qualified State Registered Nurse, of a nursing orderly grade which would be concerned with the simpler and more routine nursing duties that do not require a background of full nurse training.

249. We do not, however, favour perpetuating a grade such as the present Assistant Nurse with a two-year training. We have not analysed the training of the Assistant Nurse as we have that of the State Registered Nurse, but we have little doubt that it would be found that a substantial reduction of time could be effected without lowering the actual standard of attainment, particularly having regard

to the fact that one of the present two years is devoted to the nursing of the chronic sick. A shorter training—say, three to six months, which we contemplate would probably suffice—could, we suggest, hardly justify statutory recognition and the use of the title “Nurse”.

250. There is no question, of course, of suggesting the discharge of those Assistant Nurses now employed, but only of discontinuing the recruitment of pupil Assistant Nurses. The Roll should be closed at a given date in the near future, and thereafter, to fill the gap, the duties now undertaken by Assistant Nurses would be allocated partly to trained staff and partly to the grade of nursing orderly, which we propose should replace the Assistant Nurse. The employment and training of nursing orderlies is a matter that calls for further investigation to assess the effectiveness of such a grade and to determine the exact content and length of the training required.

251. The correct ratio of nursing orderlies to trained nurses in any type of institution cannot at present be stated: it can only be determined in the light of further study of the relative effectiveness of the two categories in the actual work of nursing. If this system is adopted it will be necessary to define—or rather to re-define—“nursing” and its content. Such definition would be required in order to specify exactly what routine and repetitive nursing duties and techniques in hospitals and elsewhere could properly be undertaken by such an auxiliary grade.

252. The status and salary of nursing orderlies should be clearly defined in relation to the status and salary of nursing staff. Posts should be graded in seniority with ample scope for promotion, and nursing orderlies, who have, or who develop, the requisite ability should be given every opportunity, subject to selection procedure, to become student nurses.

CHAPTER XV

Summary of Main Conclusions

1. The key problem in the present training system is wastage during training (para. 88).
2. Nurses in training must no longer be regarded as junior employees subject to an outworn system of discipline. They must be accorded full student status so far as the intrinsic requirements of nurse training permit (para. 108).
3. A new procedure for selecting student nurses is required (para. 108 and chapter XI).
4. There is need for a new procedure in selection for appointments to senior posts in hospitals (para. 108 and Appendix IV).
5. The training day should be shortened to approximate to a “normal” working day. This involves the introduction of a three-shift system, which is as desirable for the trained as for the student nurse (paras. 108 and 150).

6. If student nurses were relieved of domestic work and of nursing duties dictated solely by the staffing demands of hospitals, a period of two years would suffice for a general training (para. 122 and 127).

7. This training could be at once more comprehensive and more effective than that now given (para. 122).

8. The period of two years would be based on a five-day training week of 40 hours and would allow for six weeks' annual holiday (para. 122).

9. The first 18 months of the course would be devoted to the fundamentals common to all fields of nursing, and the remaining six months to concentrated study and training in a chosen field (paras. 128-9 and 133).

10. The explicit aim of the new system would be the development of a nursing service in closer accord with modern ideas of social and preventive medicine. Health nursing and sick nursing must be considered side by side (paras. 130 and 136).

11. In the introductory period of the course the student should be made aware of all fields of nursing and of what the community does to promote health (para. 131).

12. All nurses on qualifying would have equivalent status: impediments to mobility would be largely removed and the several fields of nursing more closely integrated (para. 144).

13. Standards of training for the various branches would reach the same level and the prestige of less popular branches would be enhanced (para. 144).

14. The training system would be simplified and an economy of nurse-power might be effected (para. 144).

15. A better foundation would be laid for "post-graduate" study (para. 144).

16. The State Examination should be divided, as now, into two parts, the first to be taken at the end of 18 months covering the content of the common course, and the second at the end of two years and based on the content of the training in the chosen field (para. 139).

17. On the successful conclusion of the two years' course the student should qualify as S.R.N. with the appropriate pay and status, but would not be regarded as qualified to practise privately, or to be employed except under supervision, until she has completed satisfactorily a further year's work under supervision. At the end of that period she would be licensed to practise (para. 140).

18. All nurses who qualify would have a uniform qualification, and one common Register would replace the present general and supplementary Registers (para. 144).

19. Consideration should be given to the application of the training scheme proposed to the training of midwives (paras. 142-5).

20. If student nurses are to be treated as students the following requirements must be met :—

(a) There must be adequate nursing and domestic staff in training hospitals (para. 146).

(b) The course of training must be dictated by the needs of the students and not by the staffing requirements of hospitals (para. 147).

- (c) The finance of nurse training should be independent of hospital finance (para. 148).
- (d) Students should be under the control of the training authority and not of the hospital, except as necessary for teaching and the care of patients (para. 147).
- (e) The responsibility for determining the necessary recruitment and ensuring that it is secured should rest with the Health Departments (para. 149).

21. Measures should be taken to provide adequate teaching staff trained in modern educational methods (paras. 154-6).

22. Students should receive, in addition to board residence (or allowance in lieu) and free tuition, a grant to cover personal expenses to be paid by the training authority (para. 160).

23. Refresher courses should be provided for nurses and "post-graduate" courses at Universities should be extended, together with other non-university courses (Appendix VIII, paras. 5-7).

24. In each Hospital Region selected hospitals and public health agencies should be grouped to form composite training units covering the whole nursing field. Students would be students of the unit passing from one institution to another as necessary in the course of their training (para. 186).

25. One pioneer unit should be started in each Region as soon as possible (para. 188).

26. Each unit would be under a Director or Principal and an Education Committee (paras. 187 and 191).

27. The teaching resources of the institutions within the unit should form a common pool (para. 187).

28. Aptitude for teaching must be taken into account in selecting sisters for wards or departments used for training purposes (para. 187, see Appendix IV and VIII, para. 9).

29. In each Region there should be a Regional Nurse Training Board with wide representation, the duties of which would include :—

- (a) The planning and co-ordination of training facilities (para. 193).
- (b) The co-ordination of standards of admission and the allocation of students to training units with due regard to the candidate's choice (para. 195).
- (c) The approval of supervisors for the year of supervised practice (para. 196).
- (d) The formation of Advisory Centres to stimulate interest in nursing and advise potential nurses (para. 196).

30. We presume that National Standing Advisory Committees for Nursing will be set up by the Ministers concerned to advise on the administration of nursing services and the organisation of the system of training ; these Committees would advise on *national* standards for the admission and training of students (para. 197).

31. The Nursing Divisions of the Health Departments should be strengthened by the appointment of Advisers on Nursing Education. It would be a function of the Divisions to approve and inspect training units (para. 198).

32. There should be set up at the Health Departments Headquarters Research Units to initiate and co-ordinate research work on nurse training and to give technical advice on matters of policy affecting the nursing profession (para. 199).

33. Problems arising from our proposed changes should be studied at Experimental Centres set up as "laboratories" for the Research Units. The effects of developments which cannot now be foreseen could be assessed at these Centres and research on the necessary hours and subjects of training carried out. In particular, there should be research on the extent to which items of training contribute to reduce incidence or duration of sickness so that the proper content of nurse training can eventually be established (para. 200).

34. There should be one General Nursing Council for Great Britain; it should include governmental, university and other educational representatives and nurses elected regionally (para. 204).

35. If our suggestions on Midwifery (paras. 143-5) are adopted, we suggest that the General Nursing Councils and the Central Midwives Boards might be combined into one body which might be called the General Council for Nurses and Midwives of Great Britain, and would include governmental, university and other educational representatives together with nurses and midwives elected regionally (paras. 206-7).

36. Candidates for nurse training who are below the level of ability required to complete the course successfully, but are otherwise suitable, should be encouraged to accept employment in a capacity ancillary to nursing (para. 62).

37. For some time it will be essential to use the services at least of those Assistant Nurses now employed, but such a grade with a two-year training should not be perpetuated (paras. 247 and 249). The Roll should be closed at a given date and to fill the gaps their duties should be allocated partly to trained staff and partly to nursing orderlies who would replace Assistant Nurses (para. 250).

38. The additional staff required to give effect to student status and the three-shift system cannot be less than 22,000 to 24,000 trained nurses and some 14,000 nursing orderlies (para. 219). This would raise the trained nursing force from 88,000 in December 1945 to 112,000 (para. 223).

39. The requirements could theoretically be met in five years by reduction of wastage (para. 222), but this takes no account of increase of staff to allow for expansion (para. 224). All restrictions on the employment of married persons in the nursing services must be removed, part-time service developed and the use of male nurses extended (para. 225).

40. To provide for existing needs and training reforms would seem to require a trained nursing force of not less than, say, 120,000 to 125,000. It is impossible to determine the additional staff required for the expansion of the National Health Services apart from the wider question of the right allocation of the nation's man-power resources (para. 234).

J. MCCREE (*Secretary*).
D. SOMERVILLE (*Assistant Secretary*).

R. S. WOOD (*Chairman*).
D. C. BRIDGES.
E. COCKAYNE.
T. DOUGLAS INCH.

22nd July, 1947.

Note by the Chairman

After our Report was completed and in the press, further information became available about manpower trends in Great Britain between 1946 and 1951. In an article on pages 142-143 of the Ministry of Labour Gazette for May, 1947, it is estimated that in that period there will be a drop of over 350,000 in the number of women aged 15-59 in the working population. If account is taken of girls aged 14 in the working population at the end of 1946, the total drop becomes about 530,000. It is clear, therefore, that, apart from the general manpower problem, it will be very difficult to maintain the female labour force of those occupations which depend largely on the services of women.

These figures confirm the view, implied in paragraph 188 of the Report, that at the best the progress of reform is bound to be slow. The issue, as I see it, is that the nursing personnel needed for the national health services cannot be secured unless radical changes, on the lines recommended in this Report, are made in the recruitment and training of the nursing profession, while at the same time the demands on manpower are such that it may be felt impracticable to spare the personnel required to effect these changes. This is but one aspect of the whole problem of the right allocation of our resources in men and material in a time of shortages, on the right solution of which depend the national standard of living and the development of the national services.

R. S. WOOD.

Note by Dr. John Cohen

I regret that I am unable to sign the Majority Report together with my colleagues on the Working Party, since in my view its recommendations fail to take sufficient account either of the relation between the planning of nursing and other health services and the planning of the country's man-power resources as a whole or of the extent to which methods employed in psychological research can provide a scientific basis for determining nursing and medical staffing ratios or determining the length of training periods for nurses. A Minority Report, including a Memorandum which Mr. Geoffrey Pyke (formerly Director of Programmes, Combined Operations Headquarters) was preparing for the Working Party on "The Problem of the Right Amount to Spend on Public Health" and other material prepared by myself on the use, in health planning, of methods employed in social and psychological research will be presented to the Minister of Health and the Secretary of State for Scotland within the next month.

JOHN COHEN.

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Appendix II

Percentile Norms for the Progressive Matrices Test

1. An alternative and, for practical work, more useful way of expressing the results of the survey of nurses' intelligence (Chapter IV) is by means of percentiles. A "percentile" is a point in a series (arranged in order of magnitude) below which lies the percentage of the group indicated by the given point. For

example, the 20th percentile is that point below which fall 20 per cent. of the group and above which fall the remaining 80 per cent. To illustrate from our own data shown in the Table below, 70 per cent. of trained nurses have a Matrix score of 41 or less. Thus a trained nurse with a Matrix score of 42 has done as well as or better than 70 per cent. of the group with which she is being compared. A student nurse with a Matrix score of 35 is as good as or better than 30 per cent. of her fellow candidates, and so on.

2. For convenience we have also converted the Matrix scores into estimated Intelligence Quotients*, since these indexes of ability are in wide usage. The second half of Table A is to be interpreted in the same way as the first half, except that the second part refers to Intelligence Quotients and the first part to Matrix scores. For example, 80 per cent. of trained nurses have an Intelligence Quotient of 116 or less, whereas 70 per cent. of students have an I.Q. of 116 or less.

3. Selected percentiles on the Matrix test and corresponding estimated Intelligence Quotients are shown in the following Table.

TABLE A
Selected Percentiles for Matrix and Intelligence Quotients†

Percentiles	Matrix			Intelligence Quotients		
	Trained Nurses	Student Nurses‡	Assistants and Others	Trained Nurses	Student Nurses‡	Assistants and Others
99	52	54	50	129	132	126
90	47	49	43	121	124	114
80	44	47	40	116	121	109
70	42	44	36	112	116	103
60	39	43	33	108	114	98
50	37	40	30	104	109	93
40	35	38	27	101	106	88
30	32	35	22	96	101	80
20	29	31	19	91	95	75
10	23	26	14	81	86	67

* Since intelligence, as measured by tests, ceases to develop appreciably after the age of 15, an Intelligence Quotient, which is defined as the ratio of mental to chronological age, does not have the same meaning for an adult as it does for a child. In practice, however, it is a useful if somewhat arbitrary index. The I.Qs. have been estimated on the basis of the Matrix scores obtained by a standard Army sample ($\bar{x} = 34.4$; S.D. = 9.8) on the assumption that the standard deviation of I.Qs. in the population is 16 points.

† Assuming the standard deviation of mean of Intelligence Quotients of adults is 16 points.

‡ Including pupil midwives.

4. The individual percentiles for each Matrix score from 15 to 56 are shown in the following Table.

TABLE B
Percentile points for the Matrix test
(based on a sample of 697 trained nurses in hospitals)

Matrix Score	Percentiles* for the Matrix Test	Estimated† Intelligence Quotients
60		141.8
59		140.2
58		138.5
57		136.9
56	100.00	135.3
55	99.7	133.6
54	99.6	132.0
53	99.6	130.4
52	99.4	128.7
51	98.6	127.1
50	98.0	125.5
49	96.3	123.8
48	95.3	122.2
47	92.7	120.6
46	89.7	118.9
45	86.2	117.3
44	83.2	115.7
43	79.3	114.0
42	74.5	112.4
41	69.3	110.9
40	64.9	109.1
39	61.0	107.5
38	57.3	105.9
37	52.4	104.3
36	47.8	102.6
35	43.2	101.0
34	39.7	99.4
33	35.3	97.7
32	31.7	96.1
31	28.4	94.5
30	25.0	92.8

* The figures in this table may best be interpreted by means of an example. A percentile point of 98.0 opposite a score of 50 marks means that 98.0 per cent. of the trained nurses in the sample obtained a score of 50 marks or less; or, in other words, a nurse obtaining a score of 50 marks has done as well as, or better than, 98.0 per cent. of those in the sample. This is roughly equivalent to an Intelligence Quotient of 125.5.

† These Intelligence Quotients are estimated by taking:

$$\frac{\text{I.Q.} - 100}{16} = \frac{\text{Matrix Score} - 34.4}{9.8}$$

It must be emphasised that these estimates of I.Q. are *first* approximations owing to the skew distribution of Matrix scores pointed out in Chapter IV.

Appendix III

Statistics relating to Estimated Annual Intake and Wastage of Student Nurses in Great Britain

CONTENTS	Table
Estimated intake of student nurses into general training	A
Estimated number of students of each annual intake leaving before completing training and number completing training	B
Estimated proportion of intake of student nurses leaving before completing general training	C
Estimated proportion of wastage of student nurses in general training leaving in different years of training	D
Estimated intake and wastage of student nurses in Mental Hospitals and Institutions	E
Estimated intake of student nurses in Infectious Diseases Hospitals and Tuberculosis Sanatoria	F
Estimated number and proportion of students of each annual intake leaving before completing training in Infectious Diseases Hospitals and Tuberculosis Sanatoria	G
Estimated proportion of wastage of student nurses leaving before completing training in Infectious Diseases Hospitals and Tuberculosis Sanatoria	H

TABLE A

Estimated intake of student nurses into general training

Year	Voluntary	Municipal	Total
1937	7,950	3,800	11,750
1938	7,850	3,400	11,250
1939	8,500	4,700	13,200
1940	8,600	3,600	12,200
1941	8,800	3,600	12,400
1942	10,150	4,900	15,050
1943	10,300	5,100	15,400
1944	10,200	3,750	13,950
1945	10,050	4,050	14,150
AVERAGE ..	9,150	4,100	13,250

TABLE B

Estimated number of students of each annual intake leaving before completing training and number completing training

Year of Intake				Number Leaving			Number Completing Training		
				Voluntary	Municipal	Total	Voluntary	Municipal	Total
1937	..	..	..	2,750	1,900	4,650	5,200	1,900	7,100
1938	..	..	..	2,700	1,450	4,150	5,150	1,950	7,100
1939	..	..	..	3,450	2,000	5,450	5,050	2,700	7,750
1940	..	..	..	2,950	1,700	4,600	5,650	1,950	7,600
1941	..	..	..	2,900	1,600	4,500	5,900	2,000	7,900
1942	..	..	..	3,400	2,000	5,450	6,750	2,900	9,600
1943	..	..	..	3,500	2,150	5,650	6,800	2,950	9,750
AVERAGE				3,100	1,850	4,950	5,800	2,350	8,100

TABLE C

Estimated proportion of intake of student nurses leaving before completing general training

Year of Intake				Voluntary	Municipal	Total
				%	%	%
1937	..	..	..	35	50	40
1938	..	..	..	35	42	37
1939	..	..	..	40	43	41
1940	..	..	..	34	47	38
1941	..	..	..	33	44	36
1942	..	..	..	34	41	36
1943*	..	..	..	34	42	37
1944*	..	..	..	36	44	38
1945*	..	..	..	28	41	32

* The figures for 1943 are underestimates since a part of the 1943 intake had not yet completed training when the figures were compiled. The figures for 1944 and 1945 are still more incomplete. Yet 36 per cent. of 1944 intake to voluntary hospitals and 44 per cent. of the intake to municipal hospitals had already abandoned training by the middle of 1946. Those entering in 1945 had had, on an average, only one year's training when these figures were compiled. Yet 28 per cent. of the intake to voluntary hospitals and 41 per cent. of the intake to municipal hospitals had been lost by the middle of 1946.

TABLE D

Estimated proportion of wastage of student nurses in general training leaving in different years of training

Year of Intake	Voluntary				Municipal			
	First Year	Second Year*	Third Year	Total	First Year	Second Year	Third Year	Total
	%	%	%	%	%	%	%	%
1937 ..	60	23	17	100	71	15	14	100
1938 ..	63	22	15	100	67	21	12	100
1939 ..	68	22	10	100	64	22	14	100
1940 ..	69	19	12	100	62	24	14	100
1941 ..	66	19	15	100	68	21	12	100
1942 ..	62	22	16	100	73	14	14	100
1943 ..	64	22	15	100	66	19	14	100
AVERAGE..	65	21	14	100	68	19	13	100

TABLE E

Estimated intake and wastage of student nurses in Mental Hospitals and Institutions

Year of Intake	Intake		Wastage		Wastage as a Percentage of Intake	
	Females	Males	Females	Males	Females	Males
1937	8,550	1,200	7,350	750	86	63
1938	9,700	1,150	8,150	750	84	65
1939	9,400	1,650	8,100	1,200	87	73
1940	7,350	750	6,200	550	84	73
1941	5,000	400	4,000	300	80	75
1942	3,950	300	2,650	300	67	100
1943*	3,750	200	2,450	200	65	100
AVERAGE ..	6,800	800	5,600	700	82	80

* In 1944 the intake of female and male students respectively was about 2,650 and 200; in 1945 the corresponding intakes were 2,750 and 500.

TABLE F

Estimated intake of student nurses in Infectious Diseases Hospitals and Tuberculosis Sanatoria

Year							Infectious Diseases Hospitals	Tuberculosis Sanatoria
1937	..	..	..	..	..	..	1,800	1,300
1938	..	..	..	..	..	..	1,500	1,200
1939	..	..	..	..	..	..	1,600	1,350
1940	..	..	..	..	..	..	1,750	1,400
1941	..	..	..	..	..	..	1,650	1,400
1942	..	..	..	..	..	..	1,950	1,400
1943	..	..	..	..	..	..	2,300	1,850
1944	..	..	..	..	..	..	1,800	1,200
1945	..	..	..	..	..	..	1,350	1,000
AVERAGE							1,700	1,400

TABLE G

Estimated number and proportion of each annual intake of student nurses leaving before completing training in Infectious Diseases Hospitals and Tuberculosis Sanatoria

Year of Intake					Infectious Diseases Hospitals		Tuberculosis Sanatoria	
					Number	Proportion	Number	Proportion
1937	..	..	..	..	950	53	600	47
1938	..	..	..	..	700	49	700	60
1939	..	..	..	..	900	58	950	71
1940	..	..	..	..	1,100	62	950	69
1941	..	..	..	..	950	58	1,000	71
1942	..	..	..	..	1,100	56	700	50
1943	..	..	..	..	1,400	61	1,400	74
AVERAGE					1,000	57	900	64

TABLE H

Estimated proportion of wastage of student nurses leaving before completing training in Infectious Diseases Hospitals and Tuberculosis Sanatoria

Year of Intake	Infectious Diseases Hospitals				Tuberculosis Sanatoria		
	First Year	Second Year	Third Year	Total	First Year	Second Year	Total
	%	%	%	%	%	%	%
1937	61	25	14	100	67	33	100
1938	53	44	13	100	86	14	100
1939	56	33	11	100	80	20	100
1940	76	20	4	100	78	22	100
1941	65	24	11	100	85	15	100
1942	59	22	19	100	64	36	100
1943	69	23	9	100	77	23	100
AVERAGE .. .	67	23	11	100	79	21	100

Appendix IV

Selection for Senior Posts in Hospitals

1. *The case for higher selection.* The results of the analysis of the causes of wastage strongly suggested the need for selecting much more carefully, and by different methods than hitherto, candidates for senior posts in training hospitals, particularly, perhaps, for the post of ward sister. The same need exists in the case of the non-training hospitals, though it is less urgent. An unsympathetic attitude on the part of some of the senior staff not merely discourages students from continuing with their training, but aggravates any discontent which exists in regard to any other aspect of training life and conditions.

The facts which have come to our notice suggest that a number of senior nurses, however kindly in disposition they may be when they assume a staff appointment, do not successfully exercise the power they wield over junior nurses partly, perhaps, owing to the harassing circumstances in which they have had to work. It is to meet this situation that we have proposed introducing student status and a three-shift working day.

2. Apart from these senior nurses, frequently torn in conflict between duty to patients and students, there are others, a large enough number to cause difficulty, who are unfitted on grounds of personality to assume the responsibilities of student and staff management. The special circumstances in which nurses have to live and work, largely in a self-contained female community, are such as

to provoke causes of friction of a psychological nature among those whose personality is not well adjusted or fully mature. They may be "constitutionally" unfitted for the job in the sense of having qualities, deeply ingrained since childhood, which make it specially difficult for them to develop friendly human contacts or personal relationships. The consequences of appointing persons of this type to responsible posts, such as that of ward sister, are low morale among both students and junior staff, and a general dissatisfaction with the life of a nurse in hospital.

3. We have reason to suspect that, under the present system, both ward sisters and higher administrative staff are selected from too narrow a range of the population of staff nurses. This may be due to a variety of reasons. Where the matron makes the choice of candidate, personal preference, or some other bias, and other irrelevant factors may operate. Like tends to be drawn to like, and there will often be a tendency for ward sisters to be appointed who have an outlook on discipline similar to that of the matron herself. In this way an authoritarian "régime" tends to perpetuate itself.

4. In a number of important training hospitals, the "inbreeding" of ward sisters is a marked feature. Only staff nurses trained in the institution are acceptable as ward sisters and there is a hostility to "alien" elements. Similarly, a sister tutor trained elsewhere, if she is accepted, is unlikely to win from the "inbred" ward sisters the full help and co-operation she needs. This is bound to have an adverse effect on the integration of theory and practice in the training of nurses, and on the coherence of the training institution as a whole.

Ward sisters who are "inbred" will be loyal to the tradition of the hospital, and if that tradition is authoritarian, they tend to demand a "blind and unthinking obedience" from students, an attitude which is not calculated to encourage an enthusiasm for nursing.

5. In a hospital, particularly a training school or unit, the ward sister occupies a strategic position. On her ultimately depends the efficient administration of the institution, and on her falls the burden of cultivating friendly and co-operative relationships between students, staff and patients. The tone and atmosphere of the ward or department and, therefore, the welfare of the patients are set by her personality and outlook. If she lacks the qualities needed for the sympathetic management of others in her charge, the entire organisation of the hospital will suffer.

6. It is important to bear in mind that the problem of fostering good staff relations, especially between senior and subordinate, is by no means peculiar to nursing. It tends to arise whenever there are leaders, managers, foremen, officers, supervisors or teachers. The recognition that the choice of these key persons can make or mar the smooth running of a group or organisation is spreading in many branches of civilian and service life, and appropriate psychological methods are being introduced to secure a proper selection of candidates.

7. The question of the need for a new approach in choosing the type of person to be in charge of student nurses also arose in considering the staffing of training units (para. 187). We drew attention there to the desirability of ward sisters retaining a distinct teaching function and suggested that an aptitude for teaching should be taken into account in selecting sisters responsible for departments of training units to which students are assigned. If this suggestion is adopted the method of selection will have to include techniques for assessing teaching aptitude.

8. We consider that the only way of meeting these serious problems is to institute a method of selecting the "right" type of nurse for senior appointments in training units. The improvement of training conditions and amenities generally, which is essential if wastage and staffing difficulties are to be surmounted, is, in some respects at any rate, a longer term task than the initiation of a selection procedure for higher appointments, but there can be little doubt that the introduction of suitable selection methods for filling senior posts would make a substantial contribution to the overall problem.

It is essential, we suggest, to cast the net of promotion as widely as possible. One way of doing this is to encourage staff nurses to come forward, of their own accord, as candidates for posts of ward sister. In this way, it should become possible to select from a much wider range of personalities, outlooks, and capacities than has hitherto been the case.

9. *Proposed method of selection.* In order to ascertain at first hand what difficulties might be encountered in higher selection for senior nursing posts, we attempted to devise and try out a method which would serve this purpose, with the object of discovering a procedure which could be adapted and improved, with further experience, for long-term use. The method was directed to selecting candidates for such special courses as may be devised for training as ward sister. It may be impracticable to introduce a training course of this kind forthwith, but this, we think, should be the ultimate aim. The training period might begin as a three-months' full-time course and later be extended to six months.

10. Our experimental procedure lasted two days from 9.30 a.m. to 6.0 p.m., and took place at the Royal Free Hospital*. Volunteer candidates were invited from some thirty general training hospitals in the London area. Thirty-two volunteered. Every candidate had to be a State Registered Nurse, preferably a staff nurse. Sixteen candidates passed through the procedure each day, the candidates being divided into two groups of eight. A group of eight was taken for two reasons. This is a number that can be conveniently assessed at the same time, and is roughly the number of trained and student nurses in an average ward of, say, 25 beds.

11. The problem of establishing a satisfactory selection procedure involves two requirements. First, it has to be shown that the various tests, test-situations, and assessments are concordant or consistent with each other. Only when this internal consistency is demonstrated does the second requirement arise of enquiring into the validity of the tests and assessments, *i.e.*, into their predictive value of success as a ward sister. The predictive value of a test can never be greater than its consistency, though the converse is not true. The fact that a test or assessment is consistent with itself, that is to say, produces the same results on successive occasions, or that different assessors reach the same conclusions about candidates, does not necessarily imply that the assessments are actually measuring what they purport to measure.

12. Owing to the limitation of preserving the anonymity of our candidates, it was impossible to obtain an independent criterion of the quality of the candidates. This might have been possible by obtaining confidential reports from the matron, assistant matron, and sister tutor at the candidate's hospital, which was precluded by the confidential conditions of the experiment. In a long-term plan for such a selection procedure, a follow-up scheme providing such evidence that the

* We are glad to express our appreciation to the senior staff of the Royal Free Hospital for their cordial co-operation in this experiment.

procedure works should undoubtedly be an essential part of the whole arrangement. The follow-up would take into account (a) proficiency, conduct and staff relationships during the training course and (b) success in a subsequent post, after a suitable period. All we could hope to do at this stage was to measure the concordance of the various tests and assessments. This we have done, with encouraging results.

13. Though it would be out of place here to describe all the technical details of the procedure, it may be indicated in broad outline.

The procedure was designed to elicit the maximum amount of information from each candidate in respect of (1) stability of temperament, (2) competence, (3) leadership, (4) kindness, (5) ability to instruct, explain and organise, and (6) reasonableness of views. It was, in many respects, modelled on that of the War Office Selection Boards. Some novel items were added and the whole procedure adapted to the needs of ward nursing. There were four assessors—the members of the Working Party. The assessments were recorded as objectively as possible on a point scale.

14. The entire procedure involved the following items:—

- (i) Biographical and personal questionnaire, including a psychiatric "screening" device*.
- (ii) Two tests of intelligence (verbal and non-verbal).
- (iii) Group discussion.
- (iv) Test of skill as instructor.
- (v) Written views on questions of nursing life and discipline.
- (vi) Assigned tasks of nursing responsibility.
- (vii) Sociometric and projective devices†.

There was a high degree of agreement‡ between the independent ratings of the four assessors on each of the tests, and also between the component tests and average assessments.

15. We have carried the enquiry as far as it is profitable under the circumstances. If a higher selection procedure is instituted the task of the responsible authorities may be facilitated by the results of these preliminary studies.

16. *Organisation.* It should not be difficult to set up the machinery for operating a selection procedure on the lines of the foregoing suggestions. As a first step a senior staff selection board should be set up, consisting of five or six members, including a qualified psychologist with suitable experience.

* Part of this was an adaptation of the Cornell Index—a questionnaire for detecting unsuitable individuals.

† "Election" of matron, ward sister, etc.; popularity ratings, and rankings of certain qualities in order of their importance for nursing; and a test on the lines of the thematic apperception test.

‡ The average intercorrelation between the assessors was of the order of 0.5–0.6 for Group Discussion; 0.77 for Skill as Instructor; and 0.66 for Assigned Nursing tasks. With a standard error of 0.25 these coefficients are all significant. A factorial analysis of the intercorrelations between (1) Non-verbal test, (2) Verbal test, (3) Written views, (4) Group Discussion, (5) Skill as Instructor and (6) Assigned tasks gives first factor saturations as follows:—

Verbal Test	0.91
Group Discussion	0.75
Non-Verbal Test	0.70
Skill as Instructor	0.62
Assigned Tasks	0.58
Written Views	0.43

These figures may give some indication of the discriminative and predictive value of the various selection devices.

The members of the board would be permanent with the exception of one—a matron appointed temporarily, *i.e.*, one place on the board should be reserved for matrons serving on a rota system.

Any qualified nurse would be free to come forward as a candidate for a course of training for the post of ward sister. If she is accepted by the board, she is eligible for the training course. On completion of the course, she is free to apply for any post she wishes.

Appendix V

Number of Nurse Training Schools* in Great Britain in 1946

Number of nurse training schools in Great Britain in 1946*

APPROVED BY GENERAL NURSING COUNCILS								
GENERAL								
Complete	..	..	..	..	..	..	..	389
Affiliated	..	..	..	..	..	..	..	167
Associated	..	..	..	..	..	..	..	5
Total	..	..	..	..	..	..	..	561
SUPPLEMENTARY								
Mental ..	..	..	..	..	..	..	..	137
Mental Deficiency	..	..	..	..	..	..	..	26†
Fever—								
Complete ..	..	..	..	..	..	..	..	126
Affiliated ..	..	..	..	..	..	..	..	21
Sick Children's	..	..	..	..	..	..	..	31‡
ASSISTANT NURSE—								
Complete	..	..	..	..	..	..	..	50
Component	..	..	..	..	..	..	..	25
Total	..	..	..	..	..	..	..	416
APPROVED BY THE CENTRAL MIDWIVES BOARDS.								
Parts I and II	..	..	..	..	..	..	..	20
Part I only	..	..	..	..	..	..	..	116
Part II only	..	..	..	..	..	..	..	93
Total	..	..	..	..	..	..	..	229
APPROVED BY OTHER BODIES								
Royal Medico-Psychological Association	..	..	..	..	..	..	..	196
Tuberculosis Association Certificate	..	..	..	..	..	..	..	107
Orthopaedic Nursing	..	..	..	..	..	..	..	21
GRAND TOTAL	..	..	..	..	..	..	..	1,530§

* Ophthalmic nursing certificates are awarded by 28 ophthalmic hospitals individually. Training for men in non-mental nursing is provided in 90 general (including affiliated) training schools.

† Including one affiliated school for State Registered Nurses only.

‡ Including two affiliated schools.

§ This figure is not identical with the number of hospitals which undertake training, as some are approved by more than one body.

Appendix VI

Length of Present Training Courses

Length of present training courses

Course of Training	Number of Years			
	1	2	3	4
<i>General Register—</i>				
(a) Complete training school				
(b) Affiliated training school				
(c) Associated training school				
(d) If on supplementary register				
<i>Supplementary Registers—</i>				
<i>Mental—</i>				
(a) Complete training school				
(b) Affiliated training school				
(c) If on general, or other supplementary register				
<i>Mental Defectives—</i>				
(a) Complete training school				
(b) Affiliated training school				
(c) If on general or other supplementary register				
<i>Sick Children—</i>				
(a) Complete training school				
(b) Affiliated training school				
(c) If on general or other supplementary register				
<i>Fever—</i>				
(a) Complete training school				
(b) Affiliated training school				
(c) If on general or other supplementary register				
<i>Tuberculosis Certificate</i>				
If on general register				
<i>Orthopaedic Certificate</i>				
If on general register				
<i>Midwifery—</i>				
Part I (if not S.R.N.)				
Part I (if on general or sick children's register)				
Part II				
<i>Health Visitor—</i>				
No previous qualifications				
If S.R.N. and Part I Midwifery				
If Part I Midwifery				

Appendix VII

Nursing Techniques

	<i>Hours</i>
1. Housewifery—	36
Care of equipment	
Methods of cleaning	
2. Bedmaking, general, special	312
Lifting and moving patients	
3. Filling water beds, air and water pillows	15
Filling of hot water bottles	
Care and use of electric pads, blankets and cradles	
4. Care of clinical and other thermometers	72
Taking and charting of temperature, pulse and respiration	
5. Reception and admission of patients	204
Care of clothing and valuables	
Blanket bathing on admission, and routine	
Bathing in bathroom	
Treatment of verminous conditions	
Cleansing of mouth, teeth (including dentures), head and hair	
Care of pressure points	
6. Bathing, feeding and care of infants and children.. .. .	96
7. Preparing and serving meals	96
Feeding helpless patients	
Preparation of special diets	
8. Giving and removing bedpans and urinals.. .. .	120
Care of incontinent patients	
Collection and preservation of specimens	
Measuring and charting of fluid intake and urinary output	
9. Isolation technique—	24
Cleansing and disinfection of equipment	
Cleansing and disinfection of crockery	
Disinfection of linen	
Disinfection of secreta, sputum, vomit	
10. Care and custody of drugs	132
Care and custody of "poisons"	
Giving of medicines	
Giving of hypodermic, intramuscular and subcutaneous injections	
11. Surgical dressing and treatments	240
Removal of stitches and clips	
Cleansing and sterilisation of instruments, bowls, rubber goods, syringes, catheters	
Cleansing of trolleys and disposal of soiled dressings	
Preparation of lotions	
Bandaging	
Making of special bandages (manytailed, triangular, plaster, etc.)	
Padding of splints and crutches	
First Aid	

12. Preparation of patients for anæsthesia, general, spinal, etc.	108
Pre-operative and post-operative care	
Preparation for cystoscopy, and rectal examinations	
Preparation for X-ray	
13. Hot and cold applications, <i>i.e.</i> , fomentations, ice-bag, poultices, etc. . .	240
Inhalations	
Steam-tent	
Administration of oxygen by mask, tent, etc.	
Special Treatments : hot, cold and ice packs, tepid sponging, radiant heat	
14. Administration of enemata, simple, special *	120
Passing of catheter	
Urine testing	
Bladder irrigation	
Vaginal douche	
Gastric lavage	
Use of suppositories	
Inunctions	
15. Special treatments of eyes, ears, nose	72
16. Artificial feeding, nasal, œsophageal, rectal, per gastrostomy tube, etc. .	52
17. Preparation for special treatments, <i>i.e.</i> —	96
Lumber puncture	
Aspiration	
Intravenous injection	
Venesection	
Blood transfusion	
Artificial pneumothorax	
Abdominal paracentesis, etc.	
18. Last offices	9
19. Ward " rounds " with Medical Staff	52
20. General Administration—	120
Keeping of records	
Ordering of stores, <i>i.e.</i> , drugs, dressings, diets, linen, etc.	
Checking of inventories	
Supervision of nursing and domestic work	
Giving and receiving reports	
TOTAL	2,216

Appendix VIII

“ Post-Graduate ” Education

1. We consider that the aim of what we call “ basic ” nurse training should be to develop in student nurses those skills and qualities which will enable them to give the best nursing service to the community. The system of training outlined in chapter IX of this Report is accordingly designed to train nurses as general

practitioners, and to provide a sound basis upon which those with the requisite ability, who may later wish to specialize or proceed to higher posts, can build up "post-graduate" training and experience.

2. With the information now available, it is impossible to judge exactly how valuable such "post-graduate" training is, or might be, in equipping nurses for specialised or more responsible work. But this is no reason for discontinuing the courses now existing: indeed, it is desirable to experiment further by extending their scope and variety. The scheme for basic training which we have adumbrated does not—it is not intended to—prepare a nurse for functions over and above those normally carried out by a staff nurse in hospital or for a first public health post after qualification. Consequently, we do not consider it unreasonable to assume that before a nurse proceeds to a post carrying new functions as, for example, in administrative or teaching posts, or nursing in specialised fields like venereal diseases, she should receive some training beyond that provided in the basic course. The diversity and content of such courses can only be provisionally decided at this stage. Only by follow-up studies, in which the various training courses are evaluated in the light of the proficiency and effectiveness of those trained, will it be possible gradually to improve the kind and content of the courses so that they become well adapted to the purposes they are designed to serve.

3. No objection can be raised to this proposal on the ground that the mental calibre of nurses is not up to university standard. In chapter IV paragraphs 60–61 we have shown that some 20 to 25 per cent. of trained hospital nurses have an intellectual capacity, as judged by tests, sufficient to render them capable of profiting from courses at the university level; while between 10 and 15 per cent., of whom more than two-thirds are probably students, have both the intellectual capacity and the educational background necessary for university studies.

4. Several "post-graduate" courses are already well established, some at university level: and they are in great demand from nurses themselves. Such courses have developed to fill three distinct needs:—(a) to prepare for work in a field which the present system of hospital training does not cover; (b) to keep nurses up to date, by means of Refresher Courses, with modern developments in the many fields of nursing, and (c) to provide advanced preparation for senior posts such as matron, nurse instructor or ward sister.

5. In order to prepare for work in a field which the present hospital training does not cover, nurses have in the past been compelled to undergo training which was largely repetitive owing to the overlapping of the various courses in existence. The sense of frustration which such unnecessary repetition tends to create, will disappear under the new system of training, and training time will be more profitably spent both by teachers and students. The practice of providing Refresher Courses to keep contact with new developments is widely accepted in many other professions: in the case of nurses such courses might well be arranged at regional level and attendance thereat should not involve any financial burden. The third need for "post-graduate" training in preparation for taking up senior posts and for specialist duties should be met by an increasing number of Universities and University Colleges.

6. Although under our proposed scheme of training some candidates will, in their final six months and subsequent year under supervision, select some field of

special interest, it is inherent in our plan that no nurse should claim to be a specialist in any particular field until she has undergone further experience and "post-graduate" training in her chosen field. Indeed, such training, we suggest, should be a pre-condition of promotion in any field.

7. The extension of existing "post-graduate" courses for nurses at Universities should not preclude greater provision for non-university courses. The latter might best be organised regionally with a due measure of central control to ensure equality in the instruction given and the status of the certificate or diploma awarded.

8. So far as we can ascertain, the "post-graduate" opportunities at present available in Great Britain are those set out in the Table at the end of this Appendix. The content, length and variety of these courses should be reviewed, if and when the new system of training becomes operative, in order that they may provide the best "post-graduate" facilities but adapted to fit the foundation of the basic scheme.

9. The particular problem of providing suitable "post-graduate" preparation for ward sisters requires special consideration. We suggest that the content of such a course might include principles and methods of teaching, administration and social psychology, as well as special training in medical or surgical nursing or nursing in one of the optional fields. Visits to public health agencies might also be included. In comparison with facilities provided in some other countries, the opportunities in Great Britain for "post-graduate" study and training are at present very restricted.

TABLE A

"Post-graduate" nursing courses in Great Britain*

No. of Course	Title of Course	Posts Prepared for	Length of Course
1	Nursing Administration ..	Matron	Academic year.
2	Diploma in Nursing ..	Senior appointments ..	12 or 18 months.
3	Teaching in Schools of Nursing	Sister Tutor	Academic year.
4	Public Health	Health and T.B. Visitor, and School Nurse	6 months.
5	District Nursing and Health Visiting	Combined District Nurse and Health Visitor	9 months.
6	District Nursing	District Nurses	6 months.
7	Midwifery Teaching ..	Midwife Teacher	1 year.
8	Industrial Nursing	Nursing in industry ..	6 months or 1 year.
9	Dietetics	Nurse-Dietitian	18 months.
10	Parentcraft	Public Health Matrons at Day Nurseries	6 months.
11	Venereal Diseases	Public Health	3 months.

* In addition to the courses set out in the table, certain hospitals provide special experience in such subjects as :

Eye conditions.
 Ear, nose and throat conditions.
 Orthopædics.
 Tuberculosis.
 Tropical Diseases.
 Skin Diseases.

NOTES ON TABLE—"POST-GRADUATE" NURSING COURSES IN GREAT BRITAIN

<i>No. of Course</i>	
1	Organised by the Royal College of Nursing, which grants a Certificate on completion.
2	The syllabus is set and Diploma granted by the Universities of London, Leeds and Birmingham. The course is part-time.
3	The syllabus is set and Diploma granted by the Universities of London, Manchester, Birmingham and Edinburgh and University College, Hull.
4	Organised in fourteen institutions in different parts of the country. The examination is held by the Royal Sanitary Institute.
5	The combined course is organised by institutions training Health Visitors, and the Queen's Institute of District Nursing.
6	Organised by the Queen's Institute of District Nursing, The Ranyard Nurses and others.
7	Organised by the College of Midwives. The course is part-time.
8	Organised by the Royal College of Nursing and by Birmingham University in conjunction with Birmingham Accident Hospital.
9	Organised by the Royal College of Nursing, King's College, Edinburgh School of Dietetics and elsewhere. The course is part-time.
10 and 11	Organised by the Royal College of Nursing. The course is part-time.

Appendix IX

Supervision of Nurses' Health

1. Supervision of the personal health of nurses, both trained and during training, is a subject to which considerable attention has lately been directed, and rightly so, in view of the absence of any co-ordinated measures laid down and despite the fact that in some institutions arrangements are admirable.

2. The Lancet and other earlier reports do not refer to this as a direct problem, but the Athlone Committee did draw attention to the great importance of routine medical examination which, they stated, was by no means universal either on admission to a training school or during training. They commended the practice of giving a thorough medical examination, including X-ray, not only before acceptance but on arrival at the training school; six months after entry; again before the State examination, and when appointed to the trained nursing staff. They concluded:—"Breakdowns in health are thereby avoided and treatment secured at an early stage in tuberculosis and other conditions. Such a practice we regard as admirable in every way and we hope it may be found possible to adopt it as a routine in British hospital practice."

3. The growing realisation that the health of the nurse herself was being treated too complacently was heavily underlined by the increasing difficulty experienced in staffing tuberculosis wards. This difficulty has approached a climax in the last few years and has focused attention on the whole subject, which has been usefully epitomised in a Memorandum on "Supervision of the Nurses' Health" published by King Edward's Hospital Fund for London in 1943.

4. In the U.S.A. the same question is now undergoing careful investigation by the United States Public Health Service. Wide diversity in the standards of

care offered was discovered by a committee specially charged to inquire into the scope and quality of the services provided, including variations in the number of hours on duty, the amount of sick leave granted, the number of days absence due to illness and the quality of medical, dental and nursing care available to students. There was also great diversity of procedure as regards the completeness or otherwise of the initial and subsequent medical examinations.

5. Canada is considering the same problem, and unpublished figures which have been made available to us show that, as regards tuberculosis alone, there is cause for serious thought. Among all nurses employed in public hospitals in one province during the years 1940-44, 37 graduate and 105 undergraduate nurses, of whom 92 were nurses in training, out of an average of 4,206 graduate and 5,758 undergraduate nurses respectively, developed active pulmonary tuberculosis requiring treatment, and all of these were newly discovered cases.

On these figures the incidence of active pulmonary tuberculosis among these graduate nurses was 2.1 per 1,000, while among nurses in training it was 3.8 per 1,000. This incidence in both groups, but especially in the latter, is considerably in excess of that obtaining for the rest of the female population of the same age-groups.

6. Statistics (unpublished) regarding the health of its nurses have been made available to the Working Party by a large general hospital in Scotland for the period 1942-45. The total number at risk (including student nurses) averaged 681 for each of the four years concerned: the average number of illnesses, *i.e.*, separate admissions to nurses' sick room, was 455 per annum and the total days lost amounted to 8,019.

7. Comparing these figures with those for insured single women aged 20-25 in Scotland for an equivalent period, the interesting fact emerges that the sickness rate among these nurses was 11.8 days incapacity per nurse per annum as compared with 10.3 days incapacity for other women of a similar age group in all occupations. It has to be remembered, however, that whereas amongst the insured population an illness may not be recorded as such until the insured person has been off duty for more than three days, a nurse off duty for only one day was counted as an illness. There must be many days lost due to short illnesses among the insured population which are not recorded.

8. While, therefore, it may be assumed that there is less time lost on account of sickness among nurses than amongst the general insured single female population of roughly the same age group, the figures still give rise to question when it is considered that no nurse is accepted for training in this particular institution unless she has a high standard of physical fitness. Indeed, taking into account the fact that these nurses represent the cream of their age group it is a high sickness rate. It is difficult to avoid the conclusion that this high incidence of sickness results from the strains which her profession imposes on her—relatively long hours of work, comparatively little recreation and almost constant exposure to infection of one kind or other.

9. As a promising indication of the success of a policy instituted by this hospital at the commencement of the period under review, there has been a noteworthy rise through the four years in the number of attendances as out-patients by nurses with a concomitant smaller, but steady, decline in the number of admissions to sick room. It is hoped that by encouraging early reporting sick,

and instituting therapeutic measures in the earliest stage, time lost through illness will be reduced.

10. Nursing as a profession presents health hazards not found in many other fields. This is particularly true in the case of student nurses exposed to various infections to an extent to which many have been previously unaccustomed. Nurse training schools should therefore be expected to have a well-organised health programme for their students and a health service designed to minimise, as far as possible, these health hazards, so as to prevent loss of time, promote maximum efficiency and assure completion of training in the best possible state of health.

Such a health service should not only guard against illness but should also have as its goal the promotion of positive physical and mental health, and should include :

- (a) Selection of students who are in good physical condition and who possess potential capacity and aptitudes for nursing.
- (b) Measures for the prevention of infection.
- (c) Maintenance of a correct balance between work and recreation conducive to physical and mental health.
- (d) Adequate supervision of health and care of students who become ill, and the provision of a safe, healthy and happy environment.

11. *Procedure for Nurse Training Unit.*

- (i) Every nurse training unit should require, before considering an applicant for admission, a medical certificate with family history from the candidate's own doctor. If this appears satisfactory, and at subsequent interview she is found to be a suitable candidate, a complete medical and dental examination by one or more designated physicians and dentists should follow.
- (ii) The medical examination, including X-ray of chest, should be repeated within 6 months of entry and subsequently as an annual routine.
- (iii) At each hospital providing training a physician and dentist should be available at all times for the nursing staff, and nurses should be permitted to consult him or his deputy directly.
- (iv) A regular weight check should be taken quarterly in the case of each nurse.
- (v) Full records of the initial and subsequent examinations, together with a record of all illnesses, should be kept by the physician to the nursing staff. Health records should be of uniform type and should be confidential.
- (vi) Provision should be made for separate sick-room accommodation and hospitalisation must be available when required.
- (vii) All necessary immunization should be carried out prior to commencement of ward work and should include at least :—
Vaccination against smallpox,
T.A.B. inoculation,
Immunisation against diphtheria,
and, when available, B.C.G. vaccination (against tuberculosis).

12. It cannot be too strongly emphasised that, having got student nurses and nurses, it will be difficult to retain them in the service unless the conditions of life offered to them are commensurate with those available in other professions.

Appendix X

Nursing the Chronic Sick

1. *Introduction.* The problem which confronts us in the chronic sick field is how to provide the right kind of nursing care for the increasing number of patients suffering from the disabilities associated with old age. At present, 1 in every 5 beds in non-mental hospitals in England and Wales is occupied by a chronic sick person and another 1 in 8 beds is occupied by one who is aged and infirm. There can be few more depressing spectacles than the sight of ward after ward occupied by hundreds of senescent patients, decrepit and incontinent, hovering perhaps for years between life and death.

2. The chronic sick receive far less medical and nursing care than any other type of patient. Indeed, it is only in relatively recent years that their need for nursing care has been recognised at all. The usual kind of building in which large numbers of the chronic sick are housed is bleak, comfortless, antiquated and in forbidding surroundings, an unfortunate inheritance from the past that cannot readily be replaced. The majority of public assistance hospitals are buildings of this sort, relics of the days when the destitute poor were consigned to the workhouses and poor law institutions. The principles on which they are administered are survivals of 18th century parochial economy. Small wonder, then, that nurses have hesitated to enter these institutions, where conditions of work are far more disheartening than in other branches of nursing. Yet the nursing staffs are meeting this difficult situation with a devotion inconceivable in any other profession.

3. In 1938, the latest date for which comparable figures are available, there were less than 2 part-time doctors per 100 beds in the chronic sick hospitals as compared with 27 in the voluntary general hospitals. There were hardly any full-time doctors in the former as compared with 3 per 100 beds, on the average, in the latter hospitals. In May, 1946, the number of trained nurses per 100 beds in public assistance hospitals (in England and Wales) was 2.4 as compared with 12.2 per 100 in general hospitals. These two indices, the ratio of doctors and nurses to patients, are a measure of the care devoted to the chronic sick.

4. *Classification of patients.* Even if accommodation and working conditions in institutions for the chronic sick were satisfactory in other respects, the almost complete lack of grouping of patients makes skilled nursing all but impossible. In one and the same depressing ward, often with rudimentary equipment and primitive sanitation, a harassed nurse may have to cope with the most heterogeneous collection of patients, cardiac, paralytic, epileptic, arthritic, deformed, crippled, incontinent, senile, paranoid and otherwise psychotic and even suicidal cases. There might also be a certain number of mental and "moral" defectives of all ages. In some cases a maternity unit might be attached, so that a sister might at one moment have to tend an epileptic in a convulsive state and the next moment a woman in childbirth. A list of cases found in three wards at a public assistance hospital in July, 1946, is given at the end of this Appendix. This is no isolated instance.

5. According to the Annual Report of the Board of Control for 1945, at least 10,000 patients certified under the Lunacy Acts are detained in public assistance institutions and general hospitals, most of them in the former. This figure relates only to persons *certified* under the Lunacy Acts and is certainly far less than the total number of mental patients in these institutions, which may well include another 12,000 uncertified "nervous" or senile cases.

6. *Number of chronic sick.* The nursing requirements of the chronic sick are almost certain to grow very rapidly during the next decades owing to the changing age structure of the community. Before we can estimate the amount of nursing care required in this sphere, we must know how many such patients there are now and how many there are likely to be in the future.

At the outset of our investigation, no information was available showing the number and distribution of chronic sick in the country as a whole. A questionnaire was therefore circulated to all Regions in England and Wales inviting the appropriate authority to state the numbers (male and female), at 31st August, 1946, of chronic sick and aged infirm respectively, distinguishing public assistance institutions and municipal hospitals. For the purpose of the inquiry, the following "definitions" (admittedly imperfect) were appended as a guide for those compiling the returns:—

- (a) the term "chronic sick" denotes those suffering from degenerative diseases or requiring continual hospitalisation;
- (b) the term "aged infirm" denotes those suffering from some infirmity primarily due to age and not included under "chronic sick".

Both in the case of (a) and (b) there was an instruction that certified mental and advanced tubercular patients should be excluded but uncertified senile cases should be included. Each institution or municipal hospital in the various Regions submitted the required particulars.

7. There were not wanting critics at the outset who argued that no satisfactory figures could be obtained in this way. They maintained that divergent interpretations of the terms "chronic sick" and "aged infirm" would be made in different Regions or institutions. Actually this fear turned out to be unfounded, as may be seen from the internal consistency of the data. There is no significant difference between the proportions of chronic sick in the different Regions. Nor is there a different "spread" of proportions in the different Regions*. This suggests that the data provide a reliable estimate of the proportion of chronic sick in the total.

8. At the end of August, 1946, there were about 50,000 chronic sick patients and about 28,000 aged infirm in the institutions and hospitals of England and Wales.

* We can apply a precise test by means of a criterion of likelihood. This involves comparing the variances of the proportions of chronic sick in all the Regions. The number of institutions varies from Region to Region. Hence the formula is:—

$$L = \frac{N}{\sqrt{(s_1^2)^{N_1} \times (s_2^2)^{N_2} \times \dots \times (s_k^2)^{N_k}}} \\ \frac{1}{N} (N_1 s_1^2 + N_2 s_2^2 + \dots + N_k s_k^2)$$

Where N_1, N_2 , etc., are the number of institutions in the Regions; s_1^2, s_2^2 , etc., are the variances of the proportions of chronic sick in the Regions; $N = N_1 + N_2 + \dots + N_k$; and k = number of samples (Regions). The observed value of $L = 0.921$. By reference to Nayler's tables, with appropriate values of N and k , we see that L is significant ($P < 0.01$). Hence the data are consistent with the hypothesis of equality of variance of the proportions as between Regions.

They were distributed between institutions and hospitals as shown in the following Table.

TABLE A
Chronic sick and aged infirm in England and Wales at 31st August, 1946

	Chronic Sick	Aged Infirm	Total
Public Assistance Institutions	37,238	25,458	62,696
Municipal Hospitals	12,588	2,893	15,481
TOTAL	49,826	28,351	78,177

9. The chronic sick derive mainly from the older age groups, particularly from those 65 or more years of age. On the basis of an age analysis carried out by the Surrey County Council*, we may assume that about three-quarters of the chronic sick (apart from advanced tubercular cases) are 65 years or more. In view of the changing age structure of the community and the increasing proportion of old persons in the ageing population of Great Britain, the number of chronic sick is not likely to remain static. On the contrary, to the extent that existing conditions of work and life remain unchanged, the number of chronic sick is likely to increase as the proportion of those above 65 increases. Thus, in order to gauge future requirements of nurses for the chronic sick, it is essential to know, at any rate approximately, what proportion of the total age group 65 and above is likely to become chronic sick.

10. There are various estimates of the future trends in the population of England and Wales. According to one reasonable forecast made by P.E.P.†, based on certain specified assumptions, the total population of England and Wales will decline from 41·5 millions in 1939 to 39·4 millions in 1969. In the same period the age group 65 or over will increase from 3·7 millions in 1939 to 5·8 millions in 1969, an increase of some 57 per cent.

11. The total number of chronic sick in the institutions and hospitals of England and Wales is, as we have seen, about 50,000. These are not evenly distributed throughout the Regions in ratio to the population. The number per 1,000 of the population ranges from 1·75 in the Eastern Region to 0·76 in Wales, the other Regions being intermediate between these two extremes. Accommodation is almost universally insufficient to meet demands. If the number of beds available was everywhere in the same ratio to the population as in the Eastern Region, there would be some 73,000 institutional cases of chronic sick. The figure of 50,000 is therefore a very conservative one to take as a measure of needs, as this represents only 1·2 per 1,000 of the population.

12. The Surrey data referred to above indicate that some 38,000, or 75 per cent., of the 50,000 chronic sick (excluding advanced tubercular cases) belong to the age group 65 and over, and it may be assumed that at mid-1946, when there were 4·5 millions in England and Wales 65 or more years of age, 0·8 per cent. of these

* *Hospital Survey for the London and Surrounding Areas*. H.M. Stationery Office, 1945. p. 19.

† *Planning*. No. 9. 1946. The assumptions underlying this estimate are (a) mortality will fall gradually until 1984 and remain fairly constant thereafter, and (b) that fertility will fall so as to reduce the gross reproduction rate from 0·9 in 1939 to 0·6 in 1974 and remain constant thereafter.

were patients in chronic sick institutions. The P.E.P. Report, mentioned previously, makes it clear that, unless counter measures are taken, we must reckon with a steadily increasing burden of chronic sick nursing as the numbers increase in the older age groups. At the lowest calculation there will thus be 49,000 chronic sick alone, apart from 36,000 aged infirm, or 0·6 per cent. of the age group, and a constant figure, 12,000 say, for chronic sick younger than 65. With an adjustment for Scotland, the total number of chronic sick and aged infirm in about 20 years time will be not less than 109,000, and, on the standard of the Eastern Region, nearer 130,000. In 1938 the average weekly cost per patient was about 26 shillings. By now the cost per patient may well be double, and 20 years hence, at a conservative estimate, the annual expenditure on the chronic sick and aged infirm can hardly be less than some £14—£18 million.

13. *Reducing the burden of chronic sickness.* There has been a growing awareness of the magnitude of the social and economic problem created by chronic sickness in an ageing population: but little organised thought has been given to the solution of the problem. The situation should be approached with a long term view in mind, not merely of increasing the supply of nurses to meet the demand, but *of doing as much as possible to reduce the demand.*

14. The average length of stay of a chronic sick patient is probably about 260 days. This figure has been estimated on the basis of the ratio of occupied beds (in public assistance institutions) to new in-patients in 1938. In general hospitals, where most of the cases are acute, the average duration of stay in 1938 was about 17 days.

Thus every chronic sick patient occupied bed space which would otherwise serve for 15 acute cases. If we could reduce by, say, 5 per cent. the nursing requirements of the present 50,000 chronic sick in England and Wales, accommodation could be provided for another 38,000 acute cases every 260 days, or some 53,000 in one year.

15. The chronic sick situation and its nursing ramifications bristle with problems for research of a social, medical and psychological nature. Available data are of the scantiest description: thus no records were available to us showing whether chronic sick are discharged from institutions alive or dead.

An important reduction in the burden of nursing the chronic sick could almost certainly be achieved by more intensified research into the diseases of senescence as well as into the social and psychological problems of old age. The study of gerontology should command the attention of the right kind of research worker*. Everything possible must be done to postpone the day of incapacity due to age alone; with this aim in view detailed studies are urgently needed of the kinds of disability from which the chronic sick suffer. If the Surrey data are representative, 25 per cent. of chronic sick patients suffer from "nervous" diseases or senility, 17 per cent. are cardiac cases, 15 per cent. arthritic, 10 per cent. bronchial, 8 per cent. arterio-sclerotic, 8 per cent. inoperable cancers, 7 per cent. T.B. and 10 per cent. miscellaneous. A good deal might, perhaps, be achieved in the way of preventing or postponing the onset of certain types of disability due to old age. The chronic incapacity of age is often due to neglect of health in infancy, childhood and in the working years. It is in the early stages that preventive measures should be applied.

* Important pioneer work has been done by the International Club for the Study of Ageing. But this is restricted to the medical sphere. The recent Nuffield Report is also a step forward.

16. It is an instructive comment on the present position to point out that chronic sick patients are not generally admitted to the hospitals which provide medical teaching and research: they are hardly more welcome in many municipal general hospitals. They are more or less abandoned to institutions where they receive the barest minimum of medical attention, and where little if any scientific effort can be devoted to the study of their disabilities. The reason often given is that chronic sick patients are nursed by Assistant Nurses and the presence of the latter is alleged to have an adverse influence on the training and attitude of the student nurse.

17. The magnitude of the social problem created by the growing number of chronic sick extends far beyond the specific problem of nursing these patients. But the two problems are inseparable. A proper solution to the second will greatly facilitate coping with the first. One of the most important points requiring investigation is the extent to which the elderly chronic sick can be rehabilitated so that some at least become fit for light occupations or able to look after themselves, possibly with some home help. The community will need to salvage as many as possible so as to prolong their productive period as long as possible.

Nursing the chronic sick is now wholly "humanitarian", for patients do not recover and go back to work, so a reduction in the patient's stay yields no economic return. But in a good many cases it could doubtless be made to do so, and there would then be an economic inducement to endow the medical and nursing treatment of the chronic sick more generously.

18. It would appear that the increasing pressure on the well-equipped general hospitals has led to a policy of transferring many cases to public assistance institutions long before they cease to benefit from continued active treatment. In the result, many patients deteriorate into bed-ridden wrecks who might otherwise not have become so. The only way of preventing this state of affairs is to retain these potentially chronic sick in the general hospitals, at least during the early stages of their illness.

19. All general hospitals, and especially the teaching hospitals, might reserve wards or blocks for cases of long duration of stay, *i.e.*, the potentially chronic sick. This might be arranged on a population basis by reserving, say, 10 per cent. of beds in general hospitals for chronic sick patients. It would thus be possible to direct all available diagnostic resources to such cases before pronouncing them chronic or incurable, and to give the chronic sick the right medical and nursing care. Medical staff and students as well as nurses would profit from the investigation and treatment. Only when further investigation and treatment of such cases would appear unfruitful should patients be moved to "long-term" hospitals, though, even then, contact should be maintained with the parent hospital. Evidence is accumulating that skilled medical attention combined with nursing of the right kind and supplemented by physical and occupational therapy, can restore to a tolerably good standard of health many of those formerly abandoned as hopeless incurables.

20. A separate inquiry is needed into the chronic sick problem as a whole. Independent action by various interested agencies is unlikely to lead to effective result. Centrally co-ordinated action, guided by planned research, is necessary to prevent the chronic sick becoming a millstone round the neck of the health services of the country.

CLASSIFICATION OF PATIENTS IN A PUBLIC ASSISTANCE INSTITUTION

WARD 1

	<i>Type of Case</i>					No. of Cases
Depressive psychosis	3
Senility	6
Suprapubic cystotomy	3
Hemiplegia	6
Tabes dorsalis	3
Post encephalitis	1
Pott's disease	1
Perineal fistula	2
Paralysis agitans	1
Cerebral thrombosis	6
Carcinoma of stomach	1
Congenital paralysis	1
Epithelioma of lip	1
Colostomy	1
Pulmonary T.B.	1
Epilepsy	1
Gingivitis	1
Myocardial degeneration	6
Muscular dystrophy	2
Specific keratitis	1
Post-operative glaucoma	1
Impetigo	1
Occupational dermatitis	2

WARD 2

Arterio sclerosis .. ..	..	..	..	..	..	3
Anæmia (pernicious)	..	..	..	..	..	1
Cerebral thrombosis	..	..	..	..	..	2
Cardiac disease .. ..	..	..	..	..	..	1
Cerebral Thrombosis with previous gastro-enterostomy and frequency of micturition	}					1
Depressive psychosis	..	..	..	..	..	1
Disseminated sclerosis	..	..	..	..	..	1
? Cerebral tumour, ? encephalitis	..	..	..	..	..	1
Hemiplegia .. ..	..	..	..	..	..	4
Hemiplegia and bronchitis..	....	..	..	..	..	1
Hemiplegia and scabies	..	..	..	..	..	1
Myocarditis and senility	..	..	..	..	..	1
Myocarditis and blind	..	..	..	..	..	1
Neoplasm .. ..	..	..	..	..	..	1
Bronchitis (helpless and incontinent)	..	..	..	..	..	2
Paralysis agitans and ulcer of lip	..	..	..	..	..	1
Paralysis (spastic) ..	..	..	..	..	..	1

WARD 2—continued

Type of Case							No. of Case
Rheumatoid arthritis	..	..	..	..	..	..	3
Senile dementia	..	..	..	..	..	..	4
Senility	..	..	..	..	..	..	2
Senile and blind	..	..	..	..	..	..	1
Still's disease	..	..	..	..	..	..	1
Tabes dorsalis	..	..	..	..	..	..	1
Ulcer of legs	..	..	..	..	..	..	1
<i>Maternity</i>							
Albuminuria	..	..	..	..	..	..	1
Admitted with Hæmorrhage (stillbirth)	..	..	..	..	..	..	1
Pregnancy with Oedema and V.D.	..	..	..	..	..	..	1

WARD 3

Arterio sclerosis	..	..	..	..	..	..	1
Asthma	..	..	..	..	..	..	1
Bronchitis	..	..	..	..	..	..	1
Chorea	..	..	..	..	..	..	1
Cerebral thrombosis	..	..	..	..	..	..	1
Senile dementia	..	..	..	..	..	..	1
Diabetic with Gangrene of leg and amputation right leg	..	..	..	..	..	..	1
Epilepsy and burns	..	..	..	..	..	..	1
Epilepsy and M.D.	..	..	..	..	..	..	1
Eczema (varicose)	..	..	..	..	..	..	1
Eczema (acute)	..	..	..	..	..	..	1
Encephalitis lethargica	..	..	..	..	..	..	1
Ischio rectal abscess	..	..	..	..	..	..	1
Pernicious anæmia	..	..	..	..	..	..	1
Senility and Addison's disease	..	..	..	..	..	..	1
Rheumatism (acute)	..	..	..	..	..	..	2
Rheumatism (chronic) and mental deterioration	..	..	..	..	..	..	1
Rheumatoid arthritis	..	..	..	..	..	..	1
Rodent ulcer of face and fractured ribs	..	..	..	..	..	..	1
Abdominal pain with vaginal discharge	..	..	..	..	..	..	1
Cerebral embolism with mitral disease	..	..	..	..	..	..	1
Fractured femur	..	..	..	..	..	..	1
Nephritis (chronic)	..	..	..	..	..	..	1
Senility and Deafness	..	..	..	..	..	..	1
? Suicidal	..	..	..	..	..	..	1
Scabies	..	..	..	..	..	..	1
Scabies and maternity	..	..	..	..	..	..	1
Ulcer of legs (varicose)	..	..	..	..	..	..	1

Appendix XI

Mental Nursing

1. *Special factors in mental nursing.* The nursing of mental patients has developed in isolation from the nursing of the physically sick. This isolation can only be understood in the light of age-old segregation of the mentally disordered and defective, a phenomenon due to many deep-seated factors influencing the public attitude to the mentally afflicted. It would be surprising if the rooted fears, superstitions and stigmata associated with insanity and mental defect were not reflected in attitudes towards mental nursing, in the type of recruit attracted to this field, and in the performance of his or her duties.

2. Many mental hospitals and institutions still bring to mind the atmosphere of the typical asylum of the past. In some hospitals the male nurse is provided with a uniform which to the inexperienced eye appears not unlike that of a prison warder. There are still great differences in the standards and size of mental and general hospitals respectively. The number of patients in mental hospitals ranges from 400 to small townships of 3,000, where it is impossible for the staff to get to know each patient, whereas there are few general hospitals with as many as 1,000 beds. As long as such disparities exist it is vain to hope that mental nursing will acquire as much repute as general nursing enjoys.

3. It is a fact, borne out by our investigations, that the average intellectual calibre of the nursing staffs in mental hospitals is significantly lower than in other types of hospital: yet the mental nurse, like the sick children's nurse, requires special gifts of insight. Many mental patients, like children, are unable to convey their wants and needs, and the nurse has to think for them. We can only assume that the training life and working conditions in mental hospitals and institutions are such as to repel more candidates of high ability. The idea that mental nurses occupy a lower status than that of those who nurse the bodily sick must be effectively eradicated. In its place the modern conception should be fostered that the mental nursing service must include a due proportion of the most highly trained nurses in the profession if modern methods of prevention and treatment are to be carried out satisfactorily.*

4. The insularity of mental nursing has been further influenced by the fact that the administration of mental hospitals has been under semi-independent committees of the Local Authorities, and by the system of dual nursing qualifications. A mental nurse could qualify either by passing the examinations of the Royal Medico-Psychological Association or those of the General Nursing Councils for the supplementary mental registers. In 1943, according to the Horder Report (p. 26) about 45,000 nurses held the certificate of the Royal Medico-Psychological Association as compared with about 10,600 who were enrolled on the mental registers of the General Nursing Councils.

5. Fortunately we can discern signs of a more progressive and scientific outlook. First, there is the integration of physical and mental health services in the new

* "Report of the Sub-Committee on Mental Nursing and the Nursing of the Mentally Defective" (paras. 14-20). H.M. Stationery Office. 1945.

Health Acts. Second, the advances in recent social and preventive psychiatry, much stimulated in the Services during the war by its association with normal psychology*, have placed the whole field of mental disability on a new and hopeful plane, and there should be encouraging repercussions in mental nursing.

6. The new health measures unite physical and mental medicine together in a single service by transferring to the Minister of Health and the Secretary of State for Scotland respectively, the present administrative functions of the Boards of Control in regard to mental health, the Boards retaining only their quasi-judicial functions connected with the liberty of the subject. As we have pointed out (paras. 138 and 144) the occasion presents an excellent opportunity for integrating mental nursing within the general nursing services of the community by breaking down the barriers which still keep apart the spheres of mental and physical health. The recent move to discontinue the examinations of the Royal Medico-Psychological Association is a step in this direction.

7. The shortage of nurses is perhaps more acute in the mental field than in any other: at the same time, wastage during training appears to be highest of all in mental nursing. What is there in mental nursing that produces an accentuation of the various difficulties encountered in the non-mental field? This is a problem which was considered by the Lancet Report, the Athlone Committee and other bodies. But there is little ground for hope that what has so far been said or done is adequate to meet the present dire situation. The annual Report† of the Board of Control for 1945 (p. 4) refers to recent improvements in scales of pay but adds that "the continued shortage of mental nurses suggests that further measures will be necessary if the recruitment to this service is to meet the needs of the hospitals".

8. We have made a special effort to ascertain the views of all grades of nursing staff in regard to their working life and conditions, at a representative sample of mental hospitals and institutions. A large number of nurses were interviewed individually or collectively for this purpose. In addition, the nurses were invited to confer and submit a considered statement of views in writing.

9. There can be little doubt that discontent and apathy among nursing staff are much deeper and more widespread in the mental hospitals and institutions than in the non-mental field. The sources of discontent are much the same, relating to pay, duty and off-duty periods, lack of adequate amenities and unduly restrictive discipline. It must be remembered, however, that in these isolated institutions, in which nurses remain for considerable periods, these points assume an even greater importance and are felt more acutely. In particular, there is need for very special attention to accessibility of nursing staff to governing bodies, to the choice of medical superintendents with an eye to the sympathetic understanding of the needs of nurses, to social and recreational amenities and to such matters as the provision of transport to and from the nearest towns.

Nurses who are only mentally trained, when seeking promotion or administrative appointments, suffer at present in competition with those who are also trained in general nursing. This ground for discontent should disappear in the

* See the Report of the "Expert Committee on the Work of Psychologists and Psychiatrists in the Services." H.M. Stationery Office. 1947.

† "The Thirty-Second Annual Report of the Board of Control for the year 1945." H.M. Stationery Office. 1946.

future if a common basic training is introduced for mental and non-mental nurses alike.

10. *Role of the mental nurse.* The problem of nursing the mentally disordered or defective is, in some respects, similar to that of nursing the chronic sick. In the mental hospitals most of the patients suffer from some form of chronic mental sickness. Though the proportion so afflicted is gradually diminishing, there are still some nine certified to every one voluntary patient resident in the mental hospitals, though admissions now are about evenly divided as between certified and voluntary patients. The ratio of discharges to admissions shows a promising trend. In the five years 1934-1938, the number of discharges* was about 58 per cent. of admissions; in the seven years 1939-1945, the proportion rose to about 66 per cent. The difference cannot, however, be attributed definitely to improvements in technique, since so many complicating factors are operative, *e.g.*, earlier admission.

11. In the institutions for the mentally defective, the functions of the nurse are unique. The vast majority of patients are "chronic" in the sense that they suffer from some inborn or acquired defect of the mind (and often of body as well) which is, in the present state of knowledge, irremediable. The nurse's task here is to act as the custodian of the ineducable low-grades, idiots and imbeciles, and to assist in the training and supervision of the higher grade feeble-minded.

12. It would be a mistake, however, to assume that the usefulness of a mentally trained nurse is limited to institutional work: there is a place for her in the public health field hardly less important. The mentally trained nurse, like the public health nurse, should have a part to play in reducing the amount of chronic incapacity in the working population.

The Feversham Committee† estimated, on the basis of Scottish experience, that some 50 per cent. of chronic incapacity in the insured population is due wholly or in part to mental or "nervous" causes. From other authoritative sources we reach estimates of a similar order of magnitude. For example, according to a Committee of the British Medical Association, in any random group of sick persons nearly a third "suffer from conditions about which it is helpful to have psychiatric advice and a considerable proportion will be found to be in need of treatment‡." The mentally trained nurse can hardly fail to have a valuable function in the presence of a problem of such magnitude. She also has a useful role to play in dealing with the so-called "social problem group", which includes in its ranks many who are mentally subnormal.

13. The recent survey§ of the mental health services by Dr. C. P. Blacker takes the view (p.46) that the future of the psychiatric services in this country will depend almost as much on the selection and training of mental nurses as on

* Excluding transfers.

† "The Voluntary Mental Health Services." Report of the Feversham Committee. London, 1939. The Committee based their estimate on "Reports on Incapacitating Sickness in the Insured Population," issued by the Department of Health for Scotland. The Scottish figures relate to 1.75 million insured persons, yielding 30,000 cases with an aggregate of 11 million days of incapacity.

‡ "Report of the Committee on Mental Health" appointed by the British Medical Association, 1941.

§ C. P. Blacker, *Neurosis and the Mental Health Services*, with a foreword by Sir Wilson Jameson. London, Oxford University Press, 1946.

the quality of psychiatrists. In recent years, many advances have been made in the field of psychiatry. The old type of asylum designed for the detention of the incurably insane is yielding to the hospital where modern methods of treatment—psychotherapy, electric convulsive and insulin therapy and prolonged narcosis and other procedures—are now routine. A large proportion of patients that would formerly be regarded as incurably insane are now discharged cured if proper treatment is applied at a sufficiently early stage. But even more important developments have taken place in preventive and social psychiatry, in child guidance centres, out-patient clinics, industry, rehabilitation and social welfare. Clearly the training of the mental nurse, if she is to participate in these fields of activity, needs to be broadened to take account of these new developments.

14. *Number of nurses and patients.* At the end of 1945 there were rather more than 26,000 nurses in mental hospitals and institutions in Great Britain. Of these, some 14·2 thousand were trained, about 6·4 thousand were students, and 5·7 thousand were assistant or other nurses. Roughly half the total number of nurses were males, but there were 8·5 thousand trained male nurses as compared with 5·7 thousand female.

15. The total number of persons suffering from mental disorder notified at the same date as under care in England and Wales was 146,027, or about 3·6 per 1,000 of the population. This includes about 10,000 in public assistance institutions or general hospitals. It has been estimated that about 5 per cent. of the inmates of mental hospitals are, in fact, mental defectives who, in the interests both of patients and staffs, should be transferred to institutions providing specifically for the training of defectives.

16. At the end of 1945 there were some 100,000 mental defectives in institutions and under statutory care in England and Wales, an increase of 10,000 over the average of the previous seven years. Of the 100,000, about 53,000 were in institutions, houses and homes under the Mental Deficiency Acts (1913 to 1938) representing 1·3 per 1,000 of the population. For these patients there is a nursing staff of about 3·4 thousand nurses. But the Board of Control estimate that institutional accommodation for defectives should be in the region of 2 per thousand of the population. On this basis the size of the nursing staff would probably have to be increased to about 6,000 if this aim is to be achieved. According to the Annual Report of the Board of Control for 1945, there is an acute shortage of institutional accommodation for mental defectives and hence an increased number are sent out on licence, and many in urgent need of institutional training cannot be admitted.

We must also take account of the possibility that with the present differential birth-rates the number of feeble-minded may be increasing. Estimates recently made by Sir Cyril Burt† suggest that the proportion of the feeble-minded in the population might be doubled in the next five decades, an increase from 2·1 to 4·1 per cent. The extension of the nursing services for mental defectives may well be a paying proposition. It should be appreciated that most defectives do in fact respond to useful training which equips them for some productive, if simple, work in agriculture or industry.

* "Report of the Joint Committee on Mental Deficiency." H.M. Stationery Office. 1929.

† *Intelligence and Fertility* by Sir Cyril Burt. London. Hamish Hamilton. 1946. P. 32.

17. In long term planning much could be done to reduce the incidence both of mental disorder and of mental defect by thoroughly examining the various social, educational, genetic and medical problems that arise, and taking appropriate action. The economies in nursing staff that could be effected may be gauged by considering the mean duration of stay of patients in mental hospitals. During the five years 1934-8 the average duration of stay of patients in the 112 mental hospitals, for which data have been compiled, was 5.3 years or 2,000 days. In 1938, the average duration of stay of patients in general hospitals was 17.6 days. This difference does not, of course, reflect on the work of the mental hospitals; it is due to the presence in them of large numbers of patients suffering from *chronic* mental disability, whereas in the general hospitals referred to there are very few chronic patients. We are in no position at the moment to lay down ideal staffing requirements either for general or mental hospitals. If we assume, however, that the staffing requirements are the same in the two fields, then some 120 general acute cases could be nursed in the time devoted to nursing a single chronic mental patient.

TABLE A
*Estimated number of full-time nursing staff in mental hospitals and
institutions in Great Britain at the end of 1945*

			Trained			Students			Others			Total		
			Male (1,000's)	Female (1,000's)	Total (1,000's)	Male (1,000's)	Female (1,000's)	Total (1,000's)	Male (1,000's)	Female (1,000's)	Total (1,000's)	Male (1,000's)	Female (1,000's)	Total (1,000's)
Institutions for	Mental													
Defectives	..	..	1.1	0.6	1.7	0.3	0.5	0.8	0.3	0.6	0.9	1.7	1.7	3.4
Mental Hospitals	7.4	5.1	12.5	1.6	4.0	5.6	2.2	2.6	4.8	11.2	11.7	22.9
TOTAL	8.5	5.7	14.2	1.9	4.5	6.4	2.5	3.2	5.7	12.9	13.4	26.3

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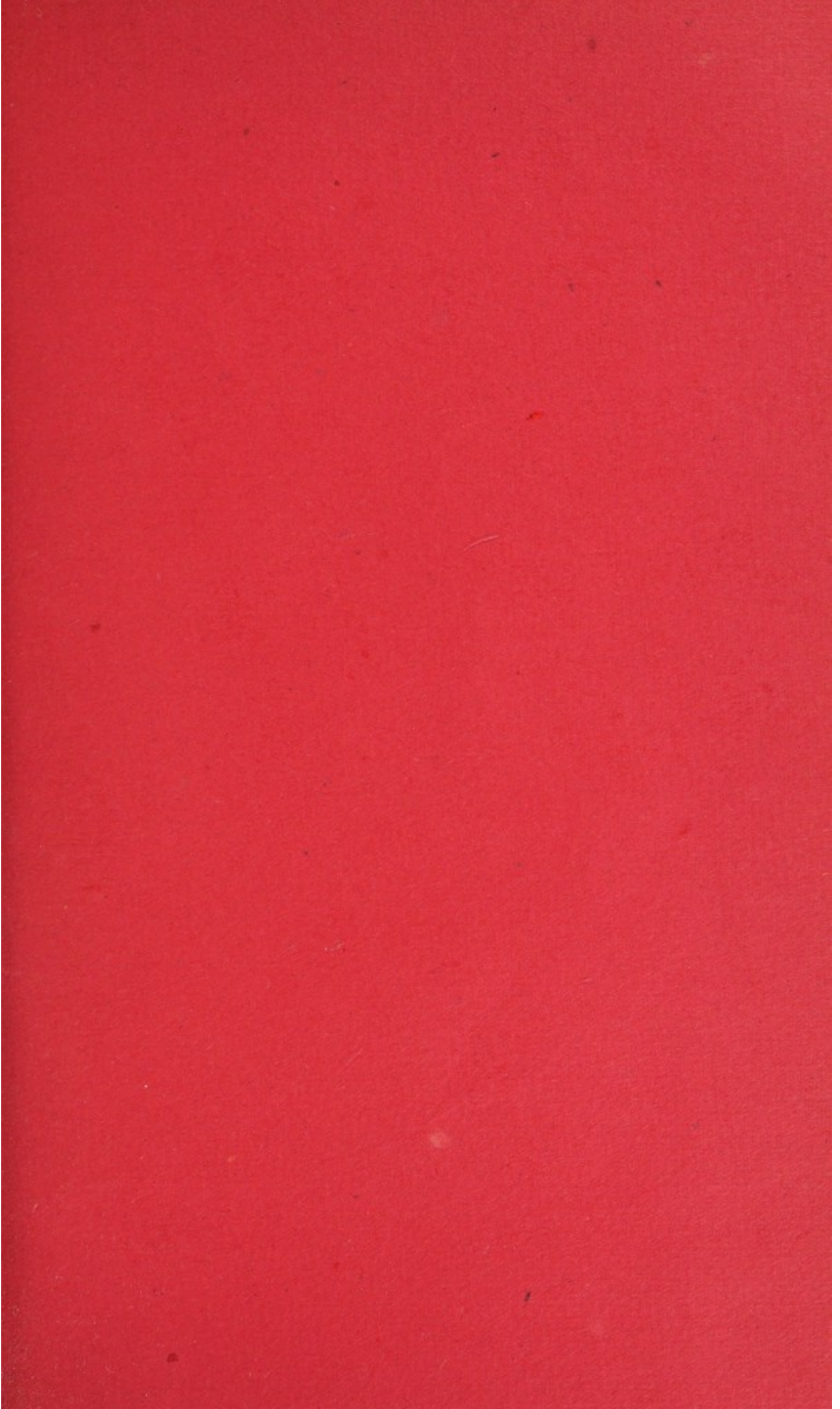
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