especially 60-61. An instructive assessment of recent trends in demographic approaches to parish registers is provided by D. E. C. Eversley, 'Exploitation of Anglican Parish Registers by Aggregative Analysis', in WRIGLEY, E. A. (ed.), An Introduction to English Historical Demography, London, 1966. We must also note the recent groundswell of parish register publication efforts. Yet what remains perhaps the most balanced and systematic descriptive survey of the substrate with which Wrigley and his co-workers concern themselves is that of J. C. Cox, The Parish Registers of England, London, 1910. Medical historians will find of special interest ch. 9, 'The plague and other sickness', pp. 142-83; here cf. esp. pp. 179-83 on the Royal Touch for scrofula.

- 4. WALKER, JOHN (ed.), Letters written by eminent persons in the seventeenth and eighteenth century: to which are added, Hearne's journeys to Reading, and to Waddon Hall, the seat of Browne Willis, esq., and lives of eminent men, by John Aubrey, esq., London, 1813. This was the first published version of Aubrey's Brief Lives.
- 5. Ibid., pp. 250-51.
- Hussey, Edward, 'On the cure of scrofulous diseases attributed to the royal touch', Archaeol. J., 1853, 10, 187-211; 189. Emphasis added.
- 7. The register booke for Stanton St. Johns (Robert Pepper Register); unpaginated.
- 8. For an earlier treatment, with respect to tuberculosis during the period here under discussion, of changes in the host-parasite relationship see John Brownlee, 'An investigation into the epidemiology of phthisis in Great Britain and Ireland', Medical Research Committee Special Reports, no. 18, 1917; cf. especially pp. 38-45. Brownlee's reliance on the London Bills of Mortality renders his approach complementary to the one we are proposing: in the former case one is looking at the proportionate mortality ascribable to tuberculosis in a sizeable population. The latter permits analysis of changes in smaller cohorts from smaller catchment areas; indeed, the most finely-grained resolution is possible, that of individual life-cycles changing over times as a consequence of shifts in the host-parasite relationship. For a more recent treatment similar to that of Brownlee, but of multiple entities in an earlier period, see T. R. Forbes, Chronicle from Aldgate: Life and Death in Shakespeare's London New Haven, 1971, pp.100-10. Cf. Cox, loc. cit. (n. 3), for examples of other parishes which may in future furnish data of this sort.

RUSSELL C. MAULITZ AND SUSAN R. MAULITZ

THE ORIGINS OF MEDICAL EDUCATION OF WOMEN IN ONTARIO

In 1871 The National Association for Promoting the Medical Education of Women was founded in Edinburgh. It represented the combination of the efforts of a handful of pioneering female physicians who were demanding admission to the Faculty of Medicine of that university. Their efforts were being matched throughout the western world by all women who demanded the right to a career in medicine.

Women in Ontario were very much aware of this struggle. The first woman physician in Canada, Dr. Emily Stowe, had been forced to obtain her medical education in the United States, as women were not permitted to enter Canadian medical schools. She graduated in 1867 (the year of the founding of the Ontario Medical Association) from the New York Medical College and Hospital for Women. Following this she returned to Toronto in company with Dr. Jenny K. Trout. These two were permitted

to take an informal session at the Toronto School of Medicine without being registered on the regular student roll. This was necessary in order to qualify for a practice as physicians.

In 1879 three ladies presented themselves for medical matriculation at Toronto. One of their examiners, Dr. A. P. Knight of Queen's University, pointed out that Queen's had thrown open university courses to women and he felt the Medical Faculty might welcome an application for admission. This was the case, and Dr. M. Lavell, Dean of the Royal Medical College of Kingston, issued a circular announcing a course of lectures for women exclusively. The session was announced for April of 1880, to continue until September. The lectures were to be equivalent in all respects to the ordinary winter course of lectures, and would be accepted in proceeding to the degree of M.D. It was stressed in the announcement that the course would in no sense differ from what was required from the other sex, and facilities for study would be the same. There would not be any separate examinations.

There were many enquiries from all over Canada, and although many young women wanted to attend the first session, they could not because they lacked academic fees. Parents, willing to make sacrifices to send a son to college, were unconvinced of the necessity of equal sacrifice for a daughter. At the opening of the session there were four candidates. The days, according to the diary of Mrs. Adam Shortt, M.D.¹ were crammed 'with work, as we were zealous students and had literally no counter attractions. We were up at six, down to the Royal, practical work for one and one half hours, and back to anatomy at ten. Then physiology, histology and therapeutics, dinner and back at two for materia medica. Then up to Queen's University for chemistry, three thirty to four thirty, and again for a time in the early evening to the Royal for practical work, and back to study until late bedtime.'

The students worked hard and by the fall, as there was talk of a fifth student. plans were made to conduct a winter course on the same basis as the summer session, However the course was held off and the second term for women did not begin until April of 1881. At this time two new students appeared, and it was agreed by the Faculty and students that a winter course should be arranged to follow the summer course. Separate dissecting rooms, cloak and waiting rooms, and a classroom adjacent to the general classroom enabled the female students to take the same lectures as the male students, although they were not in the same room. There had been considerable speculation in other centres in the western world, that it was not possible to give a medical course to both sexes at the same times. Indeed the New England Female Medical College, Boston (founded 1848), restricted admission solely to women. The University of Edinburgh insisted upon a separate room for the ladies, which could be adjacent to the main lecture room, and in addition, did not consider any female lecturers. However, the partly co-educational, partly separate course offered at Queen's seems to have been a success in its initial years. The older male classmen curbed some of the excesses of the younger group.

The class of 82/83 was a larger class with more male freshmen and three new lady students. According to Dr. Shortt a change in attitude of the class was noted after the term had begun. The class of senior students, which previously had kept the younger men in check, had graduated and an undesirable element from the younger years

had become senior students. In addition, it seems a lecturer in physiology, who had been open and friendly with the lady students, began to voice his objections in class to the place of women in a medical school. Apparently some elements in the class responded and began to make objectionable remarks regarding the presence of the ladies. That this was disturbing to the ladies may be seen in a diary entry, 'November 22; No-one knows or can know what a furnace we are passing through these days at the College. We suffer torment, we shrink inwardly, we are hurt cruelly It is that encouraged current through the class of whispers, innuendo, derisive treading, the turning of what was never meant as unseemly into horrible meanings, and the thousand and one ways that can be devised by evil minds to bring responsive smiles from their own kind.' The ladies resolved between themselves that they would not put up with any ribaldry or innuendo past a certain point. This point was reached on the day of 9 December when lecturer and male students combined and succeeded in causing the ladies to rise in a group and leave the classroom. The male students now petitioned the university and demanded co-education be discontinued. They pointed out that it was necessary to water down lectures because of the presence of females. Inasmuch as the males had paid full fees for their lectures, they expected to receive full measure. To back their demands they pointed out that they could withdraw to Trinity in Toronto or McGill in Montreal. Actually, according to The Globe in Toronto, a telegram had been sent to Trinity asking if Dr. Geikie (the Dean) would accept students on transfer. This demand on the part of the students seriously threatened the Royal College, as the main source of income for the teachers was students' fees. If they withdrew the college would have to close. In addition this would mean a loss of revenue to the town of Kingston.

Beyond these financial considerations was the anguish caused to Principal Grant and others who had sponsored the co-education programme. Grant, who was an outstanding figure in university education, with the assistance of Dean Lavell, managed to work out a compromise situation whereby the girls would continue in the course until they had completed their degree, working in separate quarters with duplicate lectures. He also agreed that no more females would be admitted to the course. The remainder of the year passed quietly with the exception of a flurry over the appearance of ladies, at the same time as males, in the operating-room at the Kingston General Hospital.

Coincidental with this arrangement by Grant, he and a committee including Dr. Knight and Dr. Lavell, held a meeting on 8 June. A resolution was passed at this meeting, which included many townspeople, that 'Kingston offers special advantages for successful working of a Women's School of Medicine, and that in the opinion of this meeting, it is right and fitting to establish such a college in Kingston'. To establish such a college it was felt necessary to have grants of at least fifteen hundred dollars per year to support it, in addition to students' fees generated. The enthusiasm of the townspeople was so great that fifteen hundred dollars was rapidly obtained, including a donation of two hundred dollars per year from Dr. Jenny Trout of Toronto. While these negotiations were going on, there had been a meeting of the Women's Suffrage Committee in Toronto. This society, which was deeply concerned with opening educational prospects for females, organized the meeting and invited

Dr. Michael Barrett of the University of Toronto to attend. The meeting urged that a Medical School for Women be set up in Toronto. Kingston felt justified in going ahead with the Kingston School, as Toronto did not seem to be making any headway. The Kingston Faculty consisted of Dr. Lavell, Dean; Dr. M. Sullivans, Surgery; Dr. R. W. Garrett, Anatomy; Dr. A. S. Oliver, Materia Medica; Dr. H. Sodders, Medicine; Dr. Phalen, Physiology; Dr. Fenwick, Medical Jurisprudence and Sanitary Science.

The City of Kingston was so enthusiastic about the school that accommodation was provided in the west chamber of the Kingston Muncipal Building at a nominal rent. The school opened on 2 October 1883 with eight women from the Royal College plus a new enrolment of four. The Women's Medical College remained at Ontario Hall (the name of the west chamber) during the next seven years, when it moved to 75 Union Street in Kingston. It continued to function independently until 1895, when it merged with the Ontario Medical College for Women in Toronto.

In the spring of 1884 the first class of ladies graduated from the Queen's University. Mrs. McGillivray, Miss Beatty and Miss Smith (Shortt) received M.D.s—the first class of women to graduate from a Canadian university. Dr. McGillivray became a lecturer in practical anatomy at the school in the following year and later lectured on obstetrics and gynaecology. Miss Smith became Mrs. Adam Shortt in 1878 and on returning to Kingston was appointed lecturer in jurisprudence and sanitary science. Dr. Marion Livingstone became lecturer in materia medica, and Dr. I. McConville was demonstrator in anatomy during the 90/91 session. The Board of Trustees, which had originally included five ladies, continued with that number.

The Globe had carried numerous accounts of the walkouts of female students and the subsequent decisions to form a separate Women's College. This paper had previously expressed the opinion that the time was ripe for the introduction of women into medical school, and an increasing flow of letters to the editor supported this feeling.

On 13 June 1883 the Women's Suffrage Club of Toronto held a meeting in Shafts-bury House, at which approximately forty people were present, the majority being ladies. Dr. Michael Barrett, Professor of Physiology, Toronto School of Medicine, who had previously espoused the cause of medical women, was present at the meeting and took part in the presentation of a recommendation that 'Toronto was a city peculiarly adapted as a site for the provincial school of this description. It was an education centre and they could not allow any other place in the province to take the lead'. 2 (This was the year when it was realized by the University of Toronto that the income from the old Royal endowment—an extension of the clergy reserves—was not enough to meet the needs of the expansion in the university. An appeal was put forward for aid out of provincial revenue. At the same time a suggestion was made that no similar aid be given to denominational colleges. Negotiations were begun to persuade Victoria (Cobourg) and Queen's to move to Toronto. Eventually Queen's declined, but Victoria moved in 1890.

The enthusiasm of the resolution at the meeting led to consideration of setting up a Board of Directors and Dr. Jenny Trout once again offered substantial cash assistance—ten thousand dollars, this offer being contingent to the proposition that

women would serve on the Board. Because of this stipulation and a further strong suggestion that there be a staff of male and female professors, her offer was turned down. Barrett felt it was difficult for a professor to stand before a mixed class and speak of the many delicate topics which might arise. (It was suggested by *The Globe* that the chief opposition came from the Toronto School of Medicine, as not many Faculty positions had been offered to that school.) Later in the year Barrett relented and agreed to the female participation.

Both medical schools stressed they were schools which offered tuition and clinical experience exclusively for women. The courses offered were exactly the same for males and led to qualification of the candidates to be recognized by the licensing board. The Kingston course, in addition, pointed out that there was an abundant supply of dissecting material, furnished by the penitentiary jail hospital and other public institutions in the neighbourhood.

The Toronto college opened in the fall of 1883 in rented premises at 291 Sumach Street. The Faculty included Dr. Barrett, Dean; Dr. R. Stowe Gullen, Demonstrator in Anatomy; Dr. Nevitt and Dr. Wishart. Dr. Gullen, daughter of Dr. Emily Stowe, had graduated from the Toronto School of Medicine affiliated with Victoria University in that year. The school continued its activities in this location until 1890 and had graduated eighteen physicians by that time. In 1888 the staff was reorganized and of a total of twenty-four teachers, four were women. Barrett died in 1887 and Dr. Alexander McPhedran accepted the Deanship for a short time, but gave it over within the year to Dr. R. B. Nevitt.

By 1890 it was possible for the *Canadian Practitioner* to state in an editorial on 1 February that 'Prejudices against female physicians are much less pronounced at this time than they were a few years ago. The opportunities afforded women for getting a medical education are greatly increased.' However Maude Abbott was not able to qualify at Bishop College in Quebec until 1894.

In 1890 the College moved to a new building on Sackville Street. It was well appointed with a lecture hall for fifty students, 'a microscopical laboratory with a place for each student, a large chemical laboratory, fully equipped, and a library and reading room'. A student, later Dr. Letitia Meade, has left a drawing of the building which shows it to be a three-storey brown-stone house with an ample basement. The latter was very important, as in 1898 it was opened as the first clinic for women in Toronto, with Dr. Jenny Gray and Dr. Ida Lynd in charge. This union of teaching and treatment facilities led to a teaching clinic.

In 1905, with the passing of the University of Toronto Act, the Ontario Medical College for Women became part of the university on recommendation of the University Committee. Co-education was firmly established, also co-lectureship, as there were now ten female instructors in a total medical staff of thirty-two. During its existence as a college, 109 girls graduated. During its early phases there was a low percentage of graduates to matriculates at the Toronto school. However, Kingston usually had a better normal average, as may be seen from Table 1. Among those who graduated were many who were recognized by their colleagues, male and female, as outstanding physicians—Dr. Helen MacMurchy, C.B.E., Dr. Rowena Hume and others. Many of the graduates took service abroad. Dr. Janet Murray was the first

TABLE I4

Number of matriculates and of graduates at each session reported, and percentage of graduates to matriculates:

	TORONTO		
Session.	Matriculates.	Graduates.	Per cent.
1886–87	24	2	8.3
1887–88	26	3	11.5
1888-89	35	3	5.7
1889-90	40	4	10

Percentage of graduates to matriculates for four years, 9.6.

KINGSTON					
Session	Matriculates.	Graduates.	Per cent.		
1883-84	11	3	27.2		
188485	14	2	14.2		
1885-86	15	2	13.3		
1886–87	18	3	16.6		
1887-88	23	5	21.7		
188889	23	1	4.3		
1889-90	22	6	27.2		

Percentage of graduates to matriculates for seven years, 17.4.

woman physician in Schenectady, New York. Dr. Weir also returned to the States and practised in Connecticut. Many others served overseas with medical missions. Szechwan, Peking (Union Medical University), Shanghai, Ceylon, Persia, India and Africa received graduates from the School.

Concurrent to the success of the school was the growth of the Women's College Hospital. Beginning with the establishment of a women's dispensary in the basement of the College in 1898, there was a stimulus provided to the organization of the 'Women's College Hospital and Dispensary Board', which resulted eventually in the purchase of a building and the establishment of the Women's College Hospital in 1910. Three of the original members of the Toronto School were still active when it was absorbed into the University of Toronto—Dr. Nevitt, Dr. J. T. Duncan and Dr. Gullen.

In addition to providing medical manpower, the Ontario Medical College for Women at Toronto and Kingston pioneered the entry of women into the professional fields of the universities in Canada. Unlike similar areas in the United States and Britain, entrance was accomplished with a minimum of difficulty. No law suits were made against the university, as happened in Edinburgh in 1872. There was no gross hardship to the applicants, no repetition of the Surgeons' Hall riot in Edinburgh, where males strongly objected to the female invasion. That this was possible was due in a large measure to the foresight of those in charge of the universities—Principal Grant of Queen's, Dr. Nelles and Dr. Geikie of Victoria and Trinity. In particular, Principal Grant realized the feasibility of co-education in medicine, and initiated it at Queen's. Although it was subsequently necessary to revert to the special education status, as was the custom in other training centres, co-education was firmly established eventually in the new federated University of Toronto.

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