James MacDougal Graham Harley (1925–2012)

President of the Ulster Medical Society 1983–84

Presidential Opening Address
Ulster Medical Society
20th October 1983

THE ROYAL MATERNITY HOSPITAL, BELFAST
FIFTY GLORIOUS YEARS
1933-1983

THE hospital from which the Royal Maternity evolved was conceived 140 years before at a meeting in the Linen Hall on 23rd December 1793 by a group of 180 ladies who called themselves "The Humane Female Society for the Relief of Lying- in-Women". After a short gestational period of 11 days the first Belfast Lying-in Hospital was born on 4th January 1794. It was a house—No. 25 Donegall Street—rented for 12 guineas per annum and contained six beds. After 35 years, due to deplorable conditions, the hospital moved in August 1830 to Clifton Street opposite the Charitable Institution. Here it was to remain for 74 years before moving to Townsend Street where the new Incorporated Belfast Maternity Hospital was built with 26 beds. This hospital, later occupied by Melville Ltd, a firm of undertakers, was opened on 7th November 1904.

In 1907, that is three years after opening in Townsend Street, a Dr C.G. Lowry was appointed house surgeon. This is the first appearance of the name of this man who, more than any other, was responsible for the building of the present Royal Maternity. Interestingly, he applied unsuccessfully to join the staff in 1909. However, on the death of Professor Byers, Professor of Midwifery, Queen's University of Belfast, 1893-1920, he was appointed to the Chair of Midwifery and joined the staff. The Chair at that time was divided into two—Dr R.J. Johnston being appointed to a Chair in Gynaecology.

From 1925 onwards, Professor Lowry, with the help and encouragement of the then Professor of Medicine, James Lindsay, who was also Chairman of the Board of Governors of the maternity hospital, started a campaign to secure a site for a new maternity hospital in the proximity of, and amalgamated to, the Royal Victoria Hospital. In 1926, at his own expense, Professor Lowry visited the most recently built hospitals in the USA and Canada. On his return, hearing that the Marquis of Dufferin and Ava was going to Canada, Professor Lowry invited him to

Image courtesy of the Office of Archives, R.V.H., Belfast

visit Townsend Street Hospital to see for himself the problems, and advised the Marquis to visit those hospitals in Canada that he had seen. On returning, the Marquis interviewed by the Press, remarked, "Belfast should be ashamed of its City Hall". When the astonished reporters enquired why, Lord Dufferin replied, "A city that has a maternity hospital like Townsend Street and a City Hall such as it is, should be ashamed".

Professor Lowry's original proposal in 1926 for the amalgamation was turned down but subsequently passed on 6th May 1927 at a Special Meeting of the Board of Governors, which was held following the Annual General Meeting at which the Right Honourable John Milton Andrews, Minister of Labour and later Prime Minister, spoke strongly supporting the amalgamation with the Royal. The next step was to persuade the staff and members of the Board of Management of the Royal. To do so, Professors Lowry and Lindsay prepared a circular entitled "The Need for Better Maternity Accommodation for Belfast and Northern Ireland".

Some of the contents of the circular are important and here I quote Professor Lowry, "In the year 1925, 150 women in Northern Ireland died in pregnancy and childbirth (this represents one in 10 of all deaths in women between 20 and 45 years of age), that is, three women per week lose their lives in what is the exercise of their highest function. The public conscience is not sufficiently sensitive to the death rate in childbirth. If 150 women per annum lost their lives by some epidemic disease of unknown cause and with an unusual name, very serious note would be taken of it". He suggested the following remedies:

1. *Better and more ample hospital accommodation.* In this, Belfast was seriously behind, as you can see from these comparative figures, which show the population of eight leading centres and the number of beds available for midwifery. Belfast is bottom of the list.

	Population	*Beds*
Dublin	approx. 400,000	255
Glasgow	1,034,000	108
Edinburgh	420,000	104
Newcastle-on-Tyne	275,000	70
Cardiff	200,000	50
Leeds	548,000	50
Bradford	286,000	42
Belfast	414,000	26

2. *The provision of better educational facilities for students and nurses.* Again I quote, "... The modern hospital is not only a resort for the sick but an educational institution where the rising generation of students and nurses receive a training which will enable them in their turn to be of service to the community".

The Board of Governors of the Royal Victoria Hospital received the circular with an accompanying letter from William Leslie, the Secretary to the Incorporated Belfast Maternity Hospital, and after much discussion, finally, three months later, agreed on 28th September 1927 to amalgamation.

Having accomplished all this, the necessary measures were taken to plan the hospital and raise the money to build it. The original proposal was for 100 beds for obstetrics and 50 for gynaecology, the gynaecological unit of the RVH to be transferred to the new building. Fifty years on we still await this latter event.

RAISING THE FUNDS

To find the money—estimated at £100,000—a special public meeting was held in the City Hall, Belfast, on 16th May 1928 to launch the scheme. Professor Lowry (Fig. 1) was fortunate in that he had been able

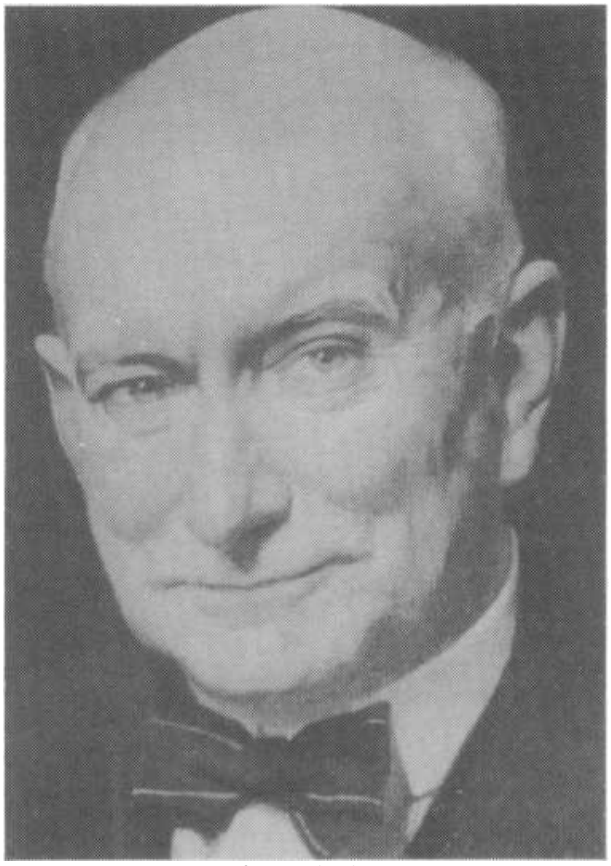


Fig. 1. *Professor Charles G. Lowry*

to interest the then Duchess of Abercorn, wife of the first Governor of Northern Ireland, in the project. At the meeting Her Grace moved the motion that "the necessary funds be raised to build and equip a new maternity home with 100 beds adjoining the Royal Victoria Hospital". The main speaker, however, was Professor Lowry and a report of his address "Ulster's New Maternity Hospital" was produced. A great deal of his speech consisted of material taken from his memorandum (Fig. 2) and again the reason he most stressed was the maternal mortality statistics which he reiterated. These were, as previously quoted, a maternal mortality of 6 per 1,000, 150 mothers died per annum, three per week, one every second day. Professor Lowry ended his speech in the City Hall quoting these lines which John Masefield had dedicated to the memory of his mother —

"What have I done to keep in mind
My debt to her and womankind?
What woman's happier life repays
Her for those months of wretched days.
What have I done, or tried or said
In thanks, to that dear woman, dead?"

The menfolk of Northern Ireland responded to this appeal with such generous donations that the Board of Governors were able to announce at the opening ceremony of the new hospital costing approximately £130,000, that it had been opened free from debt.

BUILDING THE HOSPITAL

The Royal Maternity Hospital was to be built as a separate unit beside the Royal Victoria Hospital, with its own administration but working in conjunction with the older hospital. To complete the proposed and agreed amalgamation, a "Bill had to be passed in Parliament which, after coming before a joint committee of the Northern Ireland Parliament, passed unopposed with its third reading on 29th April 1931. The architects for the new hospital were Messrs Young & McKenzie and the builders McLaughlin & Harvey.

THE OPENING DAY

The great day finally arrived when the hospital in Townsend Street ended its career and closed its doors on 1st August 1933. The Matron, her nursing staff, ten mothers and six babies moved into the new Royal Maternity Hospital. Here, in the new hospital was pride and assurance of youth, pride in no vain glorious sense, but pride in its parentage and in the traditions which its predecessors had handed over to it and which it would endeavour to emulate—even surpass.

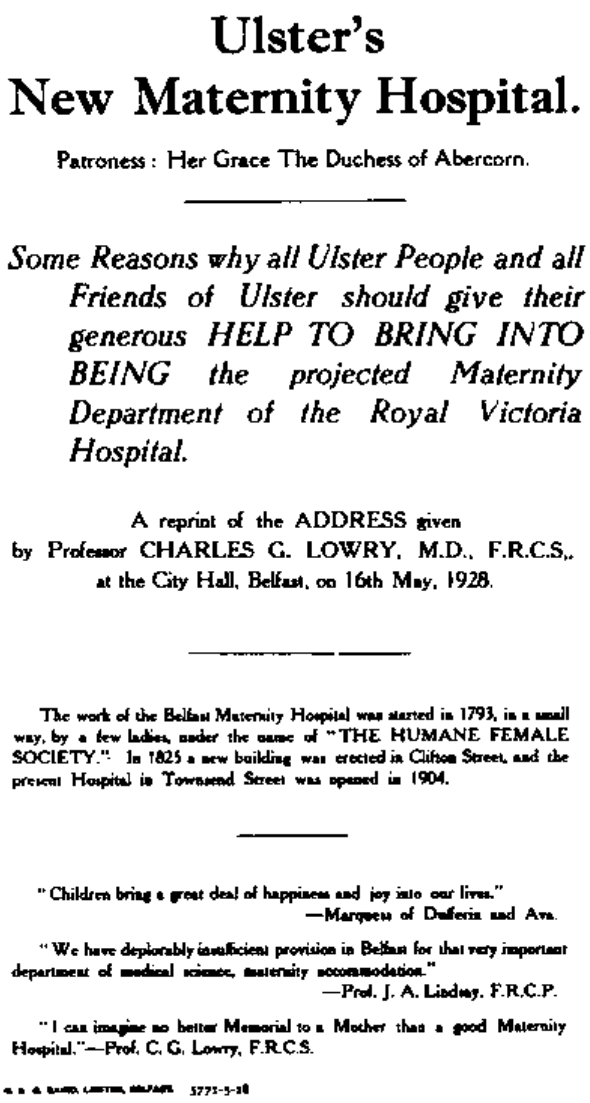
According to the first Annual Report, the last baby born in Townsend Street was David Hay—on 28 July 1933. His mother was Helen Hay, as recorded. However, the name Annie Shields who had a daughter the same day, appears on the next line, so I wonder if the Report is correct? As no time is recorded we cannot be certain. The first baby born in the new hospital was Francis Wisdom (6 lb 4 oz), born at 9.45 a.m. on 1st August 1933. His mother was Mrs Mary Alice Wisdom.

When opened, the hospital had 100 beds as planned, but as the Building Committee had to leave the construction of the Nurses' Home until further funds were available, 40 beds out of the 100 were allocated to nursing and domestic staff. This state of affairs was not to be remedied until the New Nurses' Home opened its doors in 1937. This later became Musson House, named after Miss Musson who was Matron of the Royal Victoria Hospital.

THE OFFICIAL OPENING DAY

On Saturday, 21st October 1933, Professor Lowry's great ambition was officially realised. Belfast's splendid new maternity hospital, designated by His Majesty King George V "The Royal Maternity Hospital", was officially declared open by Mrs Stanley Baldwin OBE who came to Belfast for this purpose on the invitation of Her Grace, the Duchess of Abercorn, who had done so much to further the scheme of providing Belfast with a maternity hospital of which it could be proud.

The opening ceremony was a grand affair, being reported in all the newspapers with different accounts and photographs. The ceremony was broadcast by the BBC. After the opening there was the usual conducted tour of the hospital. The Duchess of Abercorn and Mrs Baldwin inspected, apart from other areas, the Rosalind Nursery which was named



Ulster's New Maternity Hospital.

Patroness: Her Grace The Duchess of Abercorn.

Some Reasons why all Ulster People and all Friends of Ulster should give their generous HELP TO BRING INTO BEING the projected Maternity Department of the Royal Victoria Hospital.

A reprint of the ADDRESS given by Professor CHARLES G. LOWRY, M.D., F.R.C.S., at the City Hall, Belfast, on 16th May, 1928.

The work of the Belfast Maternity Hospital was started in 1793, in a small way, by a few ladies, under the name of "THE HUMANE FEMALE SOCIETY." In 1825 a new building was erected in Clifton Street, and the present Hospital in Townsend Street was opened in 1904.

"Children bring a great deal of happiness and joy into our lives."
—Marquess of Dufferin and Ava.

"We have deplorably insufficient provision in Belfast for that very important department of medical science, maternity accommodation."
—Prof. J. A. Lindsay, F.R.C.P.

"I can imagine no better Memorial to a Mother than a good Maternity Hospital."—Prof. C. G. Lowry, F.R.C.S.

Fig. 2. *Photograph of front page of Professor Lowry's address on 16th May 1928.*

after the Duchess. A personal comment, made subsequently by C.H.G. Macafee, noted that the man who was the driving force behind the scheme was not on the platform but in a seat at the back of the marquee. Of course, he meant Professor Charles Gibson Lowry.

About the same time, the following words were expressed by Dr C.S. Thomson, the then Medical Superintendent Officer of Health for Belfast: 'The Belfast Maternity Hospital was established in the reign of King George III and an institution which has lived through all the storms and stresses since—the buffetings of fate, the overthrow of kingdoms and the crashing of thrones—must be one blessed by Divine Providence and respected of mankind". Perhaps these sentiments could be repeated today.

The first and only baby born on the official opening day was a daughter to Mary Jordan. Baby Jordan is now Mrs Morrow who will be 50 years old tomorrow.

SOME EVENTS OVER THE FIFTY YEARS

During the preparation of this Address it soon became obvious that it would be quite impossible to mention everything which had occurred in the hospital over the past 50 years. I have therefore chosen important events which I hope will not only be of interest but were also milestones in the hospital's history.

The Matrons

By long tradition, the Matron was "the boss". She could be compared to the Captain of a great liner, in charge of all the crew and responsible for the passengers. Although time has changed her role, in the Royal Maternity we still like to think of our District Nursing Officer as "Matron" with all the status that went with her in the past. We have had seven Matrons over the 50 years.

1933—34	Miss Waddell
1934—37	Miss Clark-Kennedy
1937—52	Miss Sparkes
1952—61	Miss Margaret Brooksbank
1961—73	Miss R.C. Perkes
1974—80	Miss Annie Mann
1980-	Miss Elizabeth Duffin

Miss Waddell was the Matron in Townsend Street and orchestrated the changeover. For reasons not recorded, she resigned on 1st September 1934—less than one year after the official opening.

On 16th November 1934, Miss Clark-Kennedy, Matron of the Maternity Wing of the Radcliffe Infirmary, Oxford, was appointed at a salary of £216—£30 more than the advertised salary—so she must have been something special. Three years later she resigned and was soon replaced by Miss Sparkes who had been a Sister in the Midwifery Department of the Middlesex Hospital. I am sure some of you will remember her. I understand the name was appropriate.

In 1952, she resigned, after 15 years' service and Miss Brooksbank was appointed. During her reign she was associated with the new unit for the preparation and sterilisation of infant feeds. She was also associated with a central linen supply within the hospital, a further redesigning of the nurseries for the care of sick and premature infants, and the acquisition of the "Perspex" cots. The prototype of the stand was designed in Birmingham and the "Perspex" crib in Belfast. The money was donated by Mrs Byers, wife of the Chairman, in the name of their three sons. The Chairman, of course, was the son of Professor Byers who, as stated earlier, was the Professor of Obstetrics before Professor Lowry.

Miss Brooksbank's successor, Miss Rosemary Perkes came to Belfast from the General Lying-in Hospital, London. She transferred the sewing and linen services, and kitchen and meal services, to lay administration. She closed down the District Midwives' Home in North Queen Street and centralised these services from the hospital. She introduced mothercraft and physiotherapy classes, commenced the training and introduction of nursing auxiliaries, and ward clerks—all changes that today are just part of the scene. If one cares to summarise her many achievements it probably would be that she relieved the midwife of many duties and in so doing allowed her more time to practice her profession.

Miss Perkes left in 1973, the year of the integration of the Health and Social Services and the implementation of the recommendations of the "Salmon Report" in Senior Nursing Staff Administration Structure. The result, for good or evil, was that the name "Matron" was replaced by that of "Principal Nursing Officer". Thus, when her successor Miss Annie Mann, commenced duties in January 1974 we had a new type of nursing administration which not only included the hospital but also the community. For a while it all seemed to be the numbers game, the various grades of administration being known by number, and this continued down the chain of command to the Sister. I can still hear our well known Senior Sister in labour ward uttering some unrepeatable remarks about being a No. 7 or 8 when, of course, she was No. 1 in labour ward and would always be No. 1.

By now, five years of the "troubles" had affected the hospital. Recruitment of students and retention of trained staff was down. In fact, we had to reduce the beds to 73 for a time. A recruitment campaign by Miss Mann and Miss Robb, District Nursing Officer of the Royal Victoria Hospital, gradually and successfully increased the numbers again until further required increases were limited due to financial difficulties. Unfortunately, today's staff is below that required, due to the financial stringencies, but one can only hope our political masters will not tighten the strings to such an extent that the highest standards of care are affected. With the responsibilities of the community services, Miss Mann was upgraded to Divisional Nursing Officer. She retired in 1980 and was succeeded by the present DNO, Miss Elizabeth Duffin.

The Training of Midwives

The evolution of the handy woman of the early 19th century to the highly professional and skilled midwife of today, holding first her general nursing qualifications, followed by 18 months training in midwifery, is interesting, and is shown in Table I which records the changes over the years. Note that 50 years ago and for many years after, the Matron was head of the training school, whereas today there is a Northern Ireland College of Midwifery under its excellent Director, Miss Uprichard. This College embraces the training schools in Jubilee Maternity, the Ulster Hospital and Altnagelvin Hospital, Londonderry.

Table I
Requirements and training of midwives

Year	*Head of School*	*Registration*	*Requirements*
1916	Matron	Central Midwives Board (Ireland)	3 months—anyone
1916-1922	"	"	4 months— SRN
1922-1926	"	Joint Nursing /Midwives Council	6 months—untrained
1926-1938 (12 years)	"	"	6 months— SRN 12 months—untrained
1938-1969 (32 years)	"	"	12 months—SRN Part I, 6 months „ II 6 months
1970	"	"	12 months—SRN
1971	"	NI Council for Nurses and Midwives	12 months—SRN
1974	Central School of Midwifery (PAEO)	"	12 months—SRN
1980-June 1983	"	"	18 months—SRN
July 1983-date	NI College of Midwifery (Director)	National Board for Nurses, Midwives, and Health Visitors	18 months—SRN

Undergraduates

The number of undergraduates trained over the past 50 years has increased. In 1933, when the hospital was opened, 45 medical students trained. Twenty-five years later, in 1958, accommodation for 10 students was available and a two-month residency programme was mandatory. Thus, approximately 60 students were trained annually in the Royal Maternity. Rules were stricter in those days. Full attendance at all classes was expected. Students were summoned by a bell to the labour ward for the delivery of every baby—night or day. No students were allowed to leave the hospital without the permission of the senior tutor. The present accommodation takes 15 students at a time for a 10-week period. This increased period is associated with the inclusion of gynaecology and a two-week period is spent in a hospital outside Belfast. Both innovations are appreciated by the students, including perhaps, also some relaxation of the rules.

Postgraduates

As a postgraduate training school we take those who are sitting the MRCOG examination with the aim of specializing in obstetrics and gynaecology. There is also a DRCOG programme for those either specializing or taking part in the general practitioners' vocational training scheme for their own MRCGP examination. Postgraduates from many countries have trained in the Royal Maternity. As with our own postgraduates, they may rotate through the other three Belfast hospitals—Jubilee, Ulster and Mater—and one or other of those outside Belfast. There was a preponderance from Australia and Malaysia in the 1950's, Africa in the 1960's, and from then on a gradually increasing number from the Middle East. Those taking the Membership examination of the Royal College of Obstetricians and Gynaecologists have brought distinction to the postgraduate school. In the past 25 years five of our postgraduates have taken the Gold Medal for first place in the examination; they are, D.R. Aicken (graduated in New Zealand 1965) and four Queensmen—J.S. Robinson (1974), H.R. Skelly (1975), R.S. Sungkur (1978) and J.H. Price (1982).

The traffic from overseas to Belfast has not all been one-way for many of our Registrars/Senior Registrars are encouraged to go abroad. The popular areas are Canada, Australia, Uganda, Zimabawe and South Africa. Our record of those postgraduates who trained in Belfast and subsequently got a "Chair" would be hard to beat. Table II shows 16 of them although there may be more. Nine were graduates of Queen's University of Belfast and, as you can see, over the hospital's 50 years all the Chairs in Obstetrics and Gynaecology at this University have been filled with distinction by Queensmen.

Table II
Postgraduates of the Belfast School of Obstetrics who became Professors

Name	University qualified	University chair
CG Lowry	QUB	QUB
RJ Johnston	"	QUB
CHG Macafee	"	QUB
JHMcK Pinkerton	"	Queen Charlotte's/ Chelsea London
W Thompson	"	QUB
TM Roulston	"	Manitoba, Canada
CR Whitfield	"	Manchester/Glasgow
JS Robinson	"	Newcastle, NSW, Australia
DM Jenkins	"	University College, Cork
NA Beischer	Melbourne	Melbourne, Australia
DR Aicken	New Zealand	Otago, New Zealand
KK Bentsi-Enchill (deceased)	Ghana	Accra, Ghana
SH Tow	Singapore	Formerly Singapore
CStJ Harding	Dunelm	Morovia, Liberia
IM Brown	St Mary's, London	Harare, Zimbabwe
OA Ojo	Ibadan	Ibadan, Nigeria

With few exceptions, all the consultants in Northern Ireland at the present time have spent some period of their postgraduate training in the Royal Maternity Hospital and the majority have held the senior tutor's post—considered the "top job" for the senior registrar. The senior tutor is responsible by tradition for the student and junior medical staff of all grades. The smooth running of the hospital depends largely on him as he acts as liaison between nursing, medical and administrative staff.

Changes in Maternal and Fetal Mortality

One does not like to use too many statistics on an occasion such as this, but unfortunately these are essential to relate demand on our hospital accommodation, and obstetricians use the survival of mother and fetus to assess whether or not what they are doing, or have been doing, is of benefit to mother and baby. Thus, I impose on you the following data for the past 50 years, with apologies.

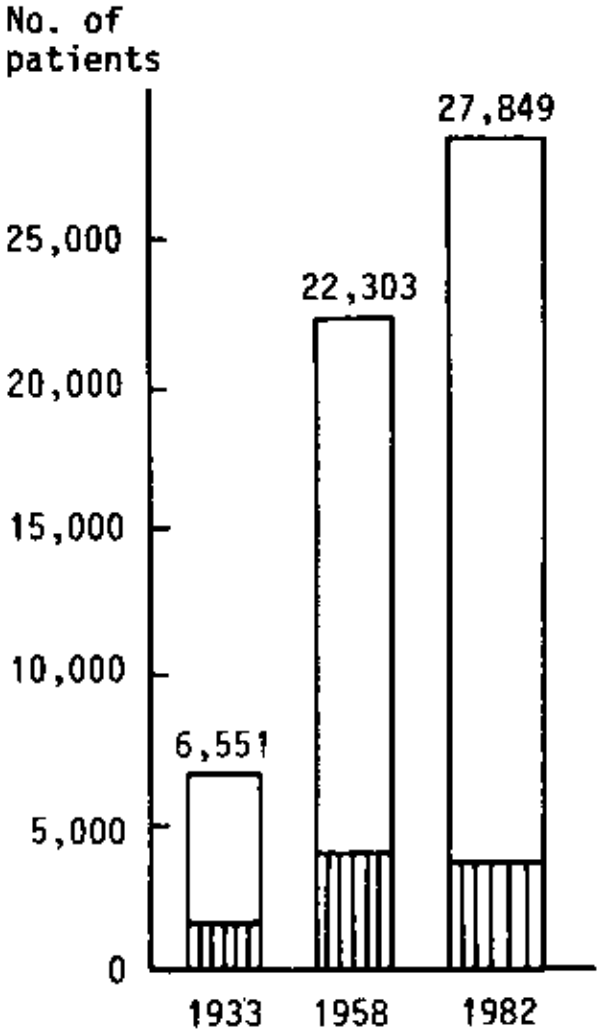


Fig. 3. *Number of patients attending Royal Maternity Hospital antenatal department, 1933-1982. Hatched area shows new patients; remainder are reattendances.*

The increasing workload of the hospital's antenatal department can be seen in Figure 3. In 1933, 1,500 new patients attended; by 1958 the figure varying between 3,500 and 4,000; and remaining so to the present. The marked increase in reattendence figures is also seen and total attendances are now approaching 28,000, which is approximately 500 patients per five-day week, or 100 per day. The amount of work this generates could only be appreciated by actually attending one of the clinics.

From Table III it can be seen that approximately 133 thousand patients have been admitted and over 105 thousand babies born. The marked increase in

the last 25 years is clearly seen. These figures are all the more striking when we look at Figure 4 showing the increasing number of admissions with very little increase in the number of beds. Is it any wonder our bed occupancy is over 100 per cent.

TABLE III
Total patients admitted and infants born in the Royal Maternity Hospital, 1933-1958

	1933–1958 (25 years)	1958–1982 (25 years)	Total
Patients admitted	52,514	80,653	133,167
Infants born	39,625	65,682	105,307

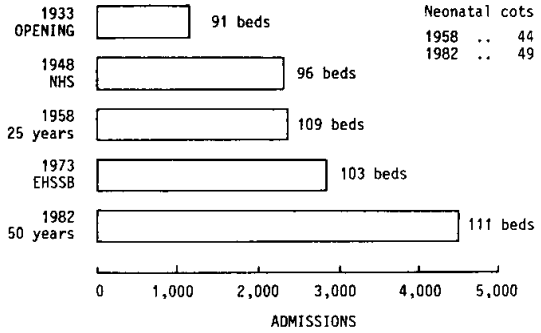


Fig. 4. *Number of admissions/beds at important dates in the 50-year history of the Royal Maternity Hospital.*

The fall in the hospital maternal mortality from approximately 27 per 1,000 in 1933 to none in the last five years up to December 1982, has been rewarding. In fact, it has been virtually under 1 per 1,000 for the past 25 years (Fig. 5).

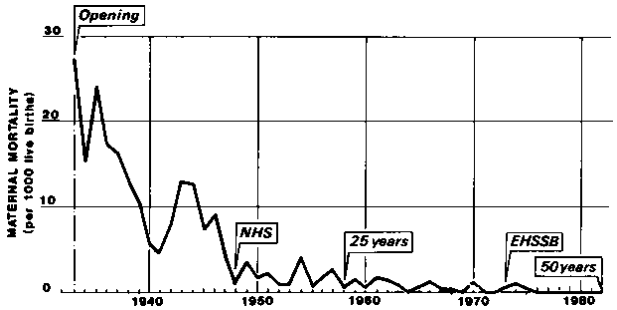


Fig. 5 *Maternal mortality, Royal Maternity Hospital, Belfast, from time of opening in 1933 to 1982*

Figure 6 shows the large increase in the number of babies born, from approximately 700 in 1933 to nearly 1,800 in 1958 and by 1982, nearing 3,600, that is, double since 1958, with about the same number of beds. The stillbirth rate has been reduced from 90 per 1,000 in 1933 to about 10 per 1,000 in 1982, and the neonatal death rate from 35 per 1,000 in 1948 to 10 per 1,000 in 1982.

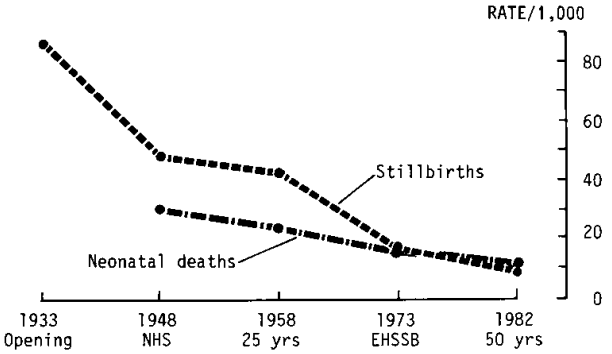


Fig. 6 *Stillbirth and neonatal death rates, 1933-1982, at important dates in the 50-year history of the Royal Maternity Hospital, Belfast*

The improvement in the perinatal mortality (that is, stillbirths and neonatal deaths in the first week) for the past 12 years from over 40 per 1,000 12 years ago to less than 20 per 1,000 for the past 3 years—more than halved.

I mention this because the fall in perinatal mortality for these years has been, for the most part, attributable to the advent of the neonatologists and the sophisticated equipment for intensive and special care of all babies requiring it, in particular those of low birth-weight. Their increased survival has been a major advance and a credit to all those who look after them.

To produce these very creditable results, many changes have occurred and only a few can be highlighted in any detail. However, this must not detract from the importance of the others such as the control of infection by sulphonamides and antibiotics which brought about the first dramatic fall in maternal mortality by eliminating that killer, puerperal sepsis. Such an important episode in medicine would deserve its own Presidential Address.

The discovery of blood groups and the formation of the Blood Transfusion Service allowed for the survival of many patients who would previously have died from that other great killer—postpartum haemorrhage.

Placenta Praevia

These discoveries had a worldwide effect on maternal and fetal mortality, but there were others, the most famous of these being the conservative management of placenta praevia advocated by the late Professor C.H.G. Macafee (Fig. 7)—delivery could be postponed in the majority of cases until the fetus was mature enough to survive. The work was carried out in the Royal Maternity and the management he advocated was adopted throughout the world. It resulted in the saving of an incalculable number of mothers' and

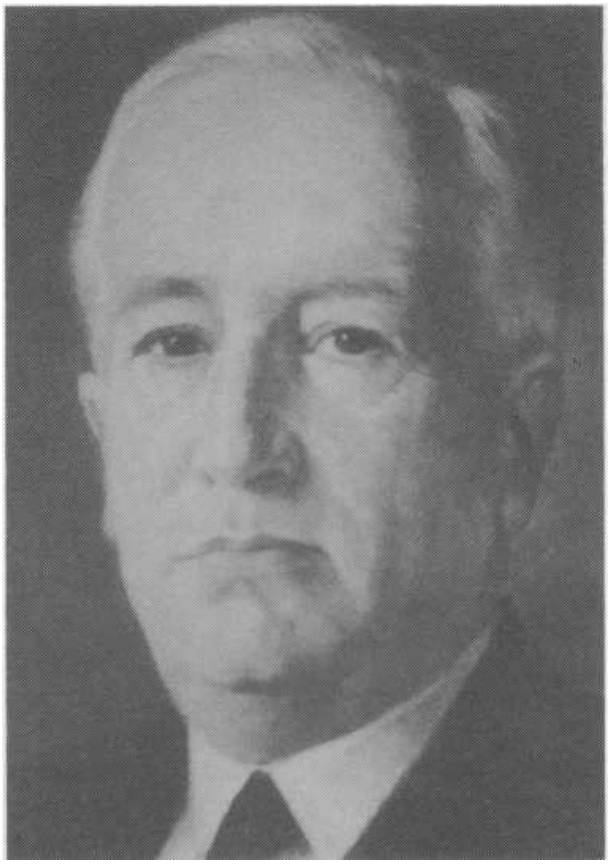


Fig. 7 *Professor C.H.G. Macafee*

babies' lives, and was to assure the Belfast School of Obstetrics a place in medical history and establish its international reputation.

When the hospital opened its doors in 1933, the maternal mortality in the United Kingdom was about 5 per cent and the fetal mortality 50-60 per cent.

The United Kingdom figures are given as the hospital figures were not recorded for placenta praevia, but it would have been about the same. Professor Macafee's policy, introduced in 1936, led to a marked reduction in the maternal and fetal mortality over the years.

As can be seen in Table IV, the most recent figures are, no maternal death and a fetal mortality of under 5 per cent. Perhaps even more striking is that only three mothers have died from the condition since conservative management was introduced 47 years ago.

Although, as Betsy Trotwood said to David Copperfield, "It's in vain to recall the past unless it works some influence on the present", this recognition of the influence of maturity on fetal survival in placenta praevia was undoubtedly a major contribution to obstetrics and perhaps one of the earliest examples of "perinatal medicine".

Table IV
Maternal and fetal mortality in placenta praevia, Royal Maternity Hospital, Belfast, 1937-1982

	No. of cases	*Maternal mortality*	*Fetal mortality*
1937–45	191	1 (0.52%)	42 (22.0%)
1946–53	200	0	24 (11.9%)
1954–58	130	2	16 (12.5%)
1978–82 (5 years)	312	0	22 (4.3%)

Rhesus incompatibility

Another important advance was the discovery in 1940 by Landsteiner and Weiner of the Rhesus factor, and the report the following year by Levine that haemolytic disease of the newborn was due to Rhesus incompatibility between mother and fetus and could result in babies like this who had died from the disease. At this time the fetal mortality in the hospital from Rhesus incompatibility was over 75 per cent. Numerous advances in our knowledge and management of the condition have occurred over the years, each bringing an improvement in the number of babies surviving (Table V).

TABLE V
Rhesus incompatibility, Royal Maternity Hospital, Belfast, 1948-1982

Date	*Patients delivered*	*Affected (Rh antibodies)*	*Fetal loss*
1948	12	7	57%
1955	67	54	31%
1968	237	161	19%
1975	116	65	26%
1981	43	36	11%
1982	62	27	7%

The final breakthrough came in 1968-70 with the introduction of Rhesus prophylaxis. This simple procedure (comparable to any other vaccination procedure) to prevent antibody formation in the mother should virtually eliminate the condition and will rank as one of the greatest advances in obstetrics.

Pregnancies complicated by Diabetes

The Royal Maternity Hospital in Belfast had one of the first metabolic/antenatal clinics in the United Kingdom. This is a combined clinic run by physicians and obstetricians and was started in the late 1950's by Professors Macafee and Montgomery, and has continued with Dr Hadden, myself and our senior registrars. This combined clinic allows closer supervision of the diabetic mother in pregnancy, and the

dramatic fall in perinatal mortality is shown in Figure 8. The particularly low figure achieved in the 10 years 1972-81 is due mainly to the appreciation that the patient's blood sugar must be kept to as normal a level as possible. This has been possible with the use of a Glucometer by patients. Fat babies dying before birth are now rare. In addition, the skill of the neonatologists has played an important part, which can be judged by the fact that no diabetic baby born alive has died in the past 10 years, unless it had an abnormality incompatible with life—an excellent record.

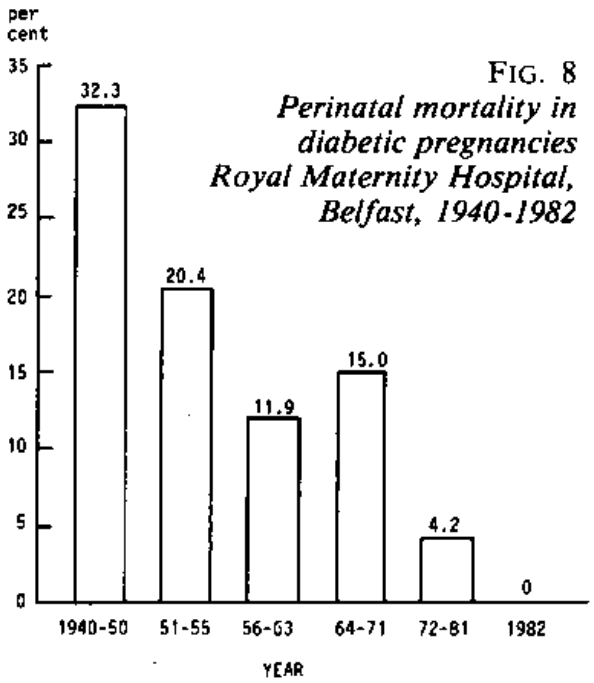


FIG. 8
Perinatal mortality in diabetic pregnancies Royal Maternity Hospital, Belfast, 1940-1982

The Genetic Clinic

Over the past 20 years, fetal malformations have been the primary cause of stillbirth in the hospital and are now the second most important cause of neonatal deaths, being surpassed only by prematurity. The infant mortality has fallen from all causes since 1980 but remains the same for congenital abnormalities. The Department of Medical Genetics at Queen's University of Belfast highlighted this problem even more when their figures were published in 1979, showing the incidence of common major abnormalities in Northern Ireland. This work revealed the horrible fact that in this province during the years 1974-1977 approximately 25 per 1,000 infants born had a potentially lethal or handicapping abnormality, that is, one in 40.

The first genetic/obstetric clinic in the Royal Maternity began in November 1969, with the aim of trying to diagnose and reduce the number of fetal malformations. To this clinic are referred patients from all over the Province who are at risk, e.g., elderly mothers and those with a family history of abnormalities or who have already had an abnormal baby. At the present time, 20-25 patients at risk are screened each month—about 250 per year—and this would be only a fraction of the actual number of mothers counselled.

The number of abnormalities detected averages about 10 per annum at the present time. Of these, two or three would be chromosomal and five or six neural tube defects. The numbers do not in any way relate to the time and care taken with each patient, but the workload is increasing and will continue to do so until the problem is under control. Our efforts to tackle this problem in our community today must not be restricted by cutbacks of any kind. Apart from the distress caused to patients and their families and its effect on the morale of those who look after the patients, the subsequent cost to the community is enormous. This is one certain way where money spent on prevention now will definitely prove to be a saving in the long term.

Ultrasonics

The contribution of ultrasonics to obstetrics has been of the greatest value and one which has proved itself to be of immense benefit to mother and fetus. Increasing knowledge leads to increased demands for the service with the inevitable increased workload. Ultrasonics first made its appearance in the Royal Maternity Hospital in May 1968. The number of ultrasonic scans performed remained fairly constant until 1974. Since then the number of scans carried out in the "Day Unit" of this hospital has risen from 2,067 in 1970 to 7,954 in 1982—a threefold increase.

The numbers will continue to increase as biophysical monitoring of the fetus becomes more and more sophisticated and probably more reliable than biochemical tests. These ultrasonic scans are carried out by obstetricians of all grades and, in addition, we have two general practitioners who have two sessions each per week, providing a valuable service for which we thank them.

I am sure many have noticed my omission of that commonest of obstetrical problems—pre-eclampsia and also eclampsia and accidental haemorrhage. Although still with us, improved antenatal care and control of maternal blood pressure, together with improved methods of monitoring, have resulted in a maternal mortality of nil and a fetal loss under 5 per cent, so these conditions, happily, are no longer a major problem.

Anaesthesia

As in any other hospital, the anaesthetist has an important part to play in the safe operative delivery of mother and baby. Our present consultant and senior registrar anaesthetists have done, and still do, provide an invaluable service, operating the modern anaesthetic machines. The development of epidural anaesthesia for the relief of pain in labour and, in some cases delivery, has benefited many patients and the demand is increasing.

Today the presence of the husband at a delivery is now the norm in the majority of cases, whereas 20 years ago he would probably have been elsewhere fortifying himself for the big event.

We are always prepared to consider the consumer, provided the demands do not interfere with necessary medical care. Various types of "birthing chairs" are being investigated at present but, so far, in spite of the media, there has been no suggestion of "pulleys from the roof" for delivery in the upright position, or tanks for underwater delivery, but who knows what the next decade will bring. Perhaps "wet suits" will replace theatre garb for obstetricians while midwives will wear "bikinis".

There is a small but increasing demand for home confinements again and this, I think, most obstetricians would resist. Domiciliary midwifery had its place in the past but its disappearance has been to the benefit of both mother and baby. This hospital was responsible for a larger number of confinements at home (72 per cent) than in hospital (28 per cent) when it first opened in 1933, but by its 25th anniversary the trend had been reversed (30 per cent home; 70 per cent hospital), and today there is a hospital confinement rate of 100 per cent except in some exceptional circumstances. This does not mean to say that community midwifery has disappeared. Group practices with all their facilities are sharing the antenatal care of more and more patients with the hospital and this is to be encouraged. Anything that will reduce the number of patients attending the hospital antenatal clinics would be of benefit to both hospital and patients and would, in my opinion, lead to even better antenatal care.

In conclusion, as tomorrow is the 50th anniversary of the Royal Maternity Hospital, perhaps I should take you back to that great occasion 25 years ago when we celebrated our Silver Jubilee. A Service of Thanksgiving and Rededication was held in St Anne's Cathedral on the Sunday. A cherry tree was planted to commemorate the occasion. All the sisters received solid silver spoons, as did the cook and others who had given long service. Also given a spoon was Mrs McCrystal who had the first and only baby

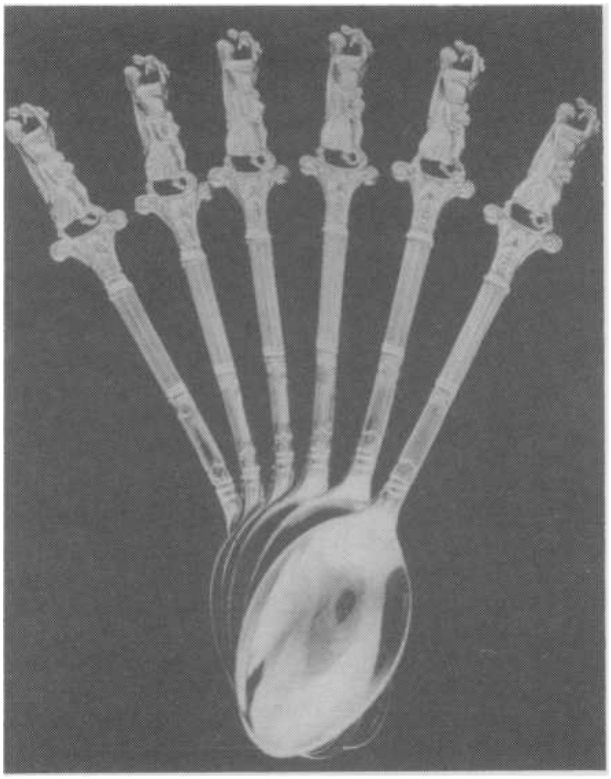


FIG. 9 *Solid silver spoons presented on the occasion of the silver anniversary of the Royal Maternity Hospital. Belfast.*

on 21st October 1958. On the spoon is the hospital crest designed by Miss Praeger and commissioned by Mrs Maitland Beath in memory of her father and mother, Mr and Mrs R.M. Young and Christine Grace her daughter (Fig. 9).

Since the Silver Jubilee, the upgrading of several areas has taken place and two major structures have been added—the new extension and the new labour suite. The new extension opened in June 1965 provided new beds, residential and office accommodation. Note carefully, I did not say additional beds for, as previously seen, the number of beds in 1933 planned for 100 and originally 50, had by the 25th anniversary increased to 109. At present the number of beds is officially only 111. The showpiece is the new labour suite which opened in 1971 and provided the hospital with one of the largest and most up-to-date and well-equipped labour suites in Europe.

Everyone involved in the hospital believes like our predecessors. Only the best is good enough for the pregnant woman and to provide this we will strive to improve the care we gave in the past for the patients and their babies. We will continue undergraduate and postgraduate training programmes of doctors.

Beckett said, “There is nothing that solidifies and strengthens a nation like making the nation’s history, until the history is recorded in books, or embodied in customs, institutions and leaders”. How well these words might apply to the Royal Maternity. The present hospital still remains proud of its amalgamation with the Royal Victoria Hospital started 50 years ago, and I would hope our colleagues there with whom we share the site and have the closest liaison, will concede that the Royal Maternity Hospital, situated in the middle of The Royal complex, is one, if not the largest, jewel in the Royal crown.

In thanking you for listening so patiently, let me finally say this to you. In troubled times we live again, but fear not, for those who have gone before survived the same, and through it all, they made, a hospital of widespread fame. Therefore, let us go forward in confidence, knowing that if we can but emulate their achievements, the greatness of the Royal Maternity Hospital shall remain.