

# Maternity records in Edinburgh and Aberdeen in 1936: a comparison

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**ABSTRACT** Historians have long used maternity records to understand the evolution of maternity services. More recently, epidemiologists have become interested in obstetric hospital records as a source of data (e.g. birth weight, social class), to study the influence of early life on future health and disease: life course epidemiology. Edinburgh and Aberdeen are unusual in holding detailed records from several maternity institutions. The records of 1936 are of particular interest because all children born in this year and at school in Scotland at age 11 sat a cognitive ability test, the Scottish Mental Survey 1947. This study aims to describe the maternity services in Edinburgh and Aberdeen in 1936, between the First and Second World Wars. Understanding the richness of data in birth records, the manner in which they were recorded, and the context of the institutions in their community is essential for interpreting life course epidemiology studies.

**KEYWORDS** Aberdeen, Edinburgh, history, maternity records, obstetrics

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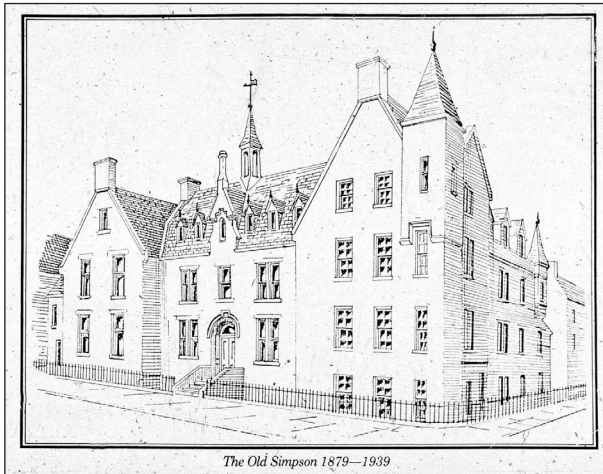
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## INTRODUCTION

Historians' use of maternity hospital records has contributed to in-depth studies of the evolution of 18th and 19th century establishments, both in Britain and abroad. This has explored the changes over time in the weighting that should be given to their varied functions as providers of medical care, education to pupils of both sexes, and shelter to the destitute.<sup>1–10</sup> In addition, personal health records have been used to demonstrate changes in obstetric management, particularly in the 20th century, and even to argue that maternal health before labour was a bigger factor in maternal mortality than the status of the attendant.<sup>9,11–14</sup> However, such studies have been essentially inward-looking, and a contrasting approach was taken by W. Peter Ward, where he recognised birth weights, lengths and gestation as indicators of the health and behaviour of the wider society surrounding the institution.<sup>15</sup> In a groundbreaking historical study which contrasted the recorded birth weights of infants in five 19th century cities (Edinburgh, Dublin, Vienna, Montreal and Boston), he not only argued that the size of newborns is a good indicator of the economic success of their home town, but also that it can provide more subtle clues to the nature of society. For example, he notes that, in patriarchal Austrian society, men had all the dietary benefits of improved income, whereas, in more egalitarian Boston, all the inhabitants ate well.<sup>15</sup>

Nonetheless, Ward's assertion of a direct relationship between birth weight and local economic success (or otherwise) has been questioned by Janet McCalman and Ruth Morley. The data collected in their long-term study of the life courses of all infants born in the Women's Hospital, Melbourne between 1857 and 1900 suggests that, rather than suffering further deprivation, in fact the very poor benefited from trade depressions when agricultural prices collapsed and the cost of food fell, indicated by the birth of bigger babies.<sup>5,16</sup> Among other material, their study links the hospital records with State Government of Victoria death certificates. This has enabled them to engage with modern medical theory, and in particular to question the perceived association between low birth weight and coronary heart disease,<sup>17</sup> the Barker Hypothesis. This was the work of Professor David Barker (1938–2013),<sup>18</sup> argued that diseases such as cardiovascular disease, hypertension and type II diabetes were predicted by low birth weight. This, and the subsequent development of the discipline of life course epidemiology<sup>19,20</sup> led to the search for, and use of, maternity records as sources of data (i.e. birth weight) but with less attention paid to the historical information they contained.

The relationship between early life circumstances and later health is of particular interest in Edinburgh and Aberdeen due to the discovery of the Scottish Mental



**FIGURE 1** The Royal Maternity and Simpson Memorial Hospital, 79 Lauriston Place, Edinburgh. Courtesy of Lothian Health Services Archive, Edinburgh University Library

Survey records from 1932 and 1947, nationwide intelligence tests taken by all 11-year-old children (i.e. born in 1921 and 1936) at school on a single day.<sup>21,22</sup> This has led to the study of cognitive epidemiology,<sup>20</sup> the study of the association between intelligence test scores and health, particularly informed by the detailed assessment of over 1000 people in older age who had participated in the Scottish Mental Survey in childhood: the Lothian and Aberdeen Birth Cohorts 1936.<sup>23</sup> The discovery of birth records in addition to the cognitive test scores has allowed exploration of early life influences on cognition in childhood and later life.<sup>24,25</sup> There are subtle differences between the findings in Edinburgh and Aberdeen and, as a result, we have questioned the role of the local historical context in this.

In this paper we aim to explore the similarities and differences between the maternity services in Edinburgh and Aberdeen in the context of maternity services in Scotland in the 1930s. We aim to establish whether aspects of the maternity services, populations and records could inform interpretation of the data analysed in the Lothian and Aberdeen Birth Cohorts 1936.

## MATERNITY INSTITUTIONS AND RECORDS IN EDINBURGH

There were 8249 registered births in Edinburgh in 1936, the majority apparently at home (58.8%).<sup>26</sup> A large number also occurred in institutions, 37.1% taking place in the two institutions discussed below, the Royal Maternity and Simpson Memorial Hospital (RMSMH), where 58.5% of inpatient Edinburgh births took place, and the Elsie Inglis Memorial Maternity Hospital (EIMMH) (31.5% of inpatient births). In addition, a small number of births (355, 10%) took place in the Western General and Deaconess Hospitals. Surviving birth records from 1936 have been preserved by the Lothian Health Services

**TABLE 1** Number of admissions to Edinburgh Institutions in 1936

Institutions	RMSMH	EIMMH	Total
Cases Admitted <sup>1</sup>	2372 <sup>1</sup>	1284 <sup>1</sup>	3656
No. of births including twins and triplets	1832	1062	2894
No. of stillbirths	184	74	258
No. of miscarriages	117	4	121

Deaths within 10 days of birth are not recorded in Edinburgh birth registers

<sup>1</sup>Cases admitted are more than number of births, stillbirths and miscarriages due to admissions for antenatal and postnatal complications

RMSMH = Royal Maternity and Simpson Memorial Hospital; EIMMH = Elsie Inglis Memorial Maternity Hospital

(Sources: RMSMH Register of Births, 1936; EIMMH 'Post natal register' 1936, Lothian Health Services Archive, University of Edinburgh)

Archives, and are stored in the Centre for Research Collections at the Main Library, University of Edinburgh (<http://www.lhsa.lib.ed.ac.uk>). The size of the child was not officially recorded in home births; however, birth measurements were recorded, and have been preserved, from the RMSMH, Lauriston Place (Figure 1) and the EIMMH, Spring Gardens, Abbeyhill.

The data available from these institutions are summarised in Appendix I (available with the online version of this paper), and the number of admissions to each institution and their outcome in Table 1. Note the high stillbirth rate (6.5%).

### The Royal Maternity and Simpson Memorial Hospital

The Edinburgh Royal Maternity Hospital was founded in Nicholson Street in March 1844, moving to St John Street in the Canongate three months later.<sup>27</sup> Fulfilling a remit as much social as medical, by the 1860s it occupied the Chapel House, Bristo Street and had a distinctly unsavoury reputation due to the nature of the patients it attracted and its poor management.<sup>28</sup> Nonetheless in 1879 it was able to move to new premises at 79 Lauriston Place, the first purpose-built maternity hospital in Scotland, funded largely by money collected for a memorial to Sir James Young Simpson, Professor of Midwifery at Edinburgh University and the first to use chloroform in childbirth. At this point its name was changed to the RMSMH. From the turn of the 20th century its reputation began to improve, and by the 1930s it enjoyed international fame as a modern and innovative provider of maternity care and medical and midwifery education.<sup>29</sup> The hospital had 94 beds<sup>30</sup> and covered three-fifths of the inpatient births in Edinburgh. During the 19th century, approximately two-thirds of RMSMH patients were delivered in their own homes,

these women conforming closely in marital status and age to the parturient population as a whole. However, women who gave birth inside the RMSMH were predominantly single and typically younger than the norm, this being true even if they were married.<sup>9</sup> Extrapolating from the nature of RMSMH as a charitable foundation, and from the neighbourhoods in which they lived, both indoor and outdoor patients were very poor; however, descriptions of destitution were usually confined to admitted patients: '[n]ot a few [poor women] have applied at the Hospital only when their last penny was gone, and the last ill-spared article of clothing in pawn, to pay for some miserable lodging, or for a respite from the cravings of hunger.'<sup>27</sup> Although patients were expected to contribute financially if possible, this was not compulsory: in 1862 the matron was directed always to admit any patient in labour.<sup>28</sup>

Like the RMSMH itself, the nature of its patients began to change from the early 20th century. In 1907, for the first time, married indoor patients exceeded single, and this trend was maintained although it indicates as much a change in society as in RMSMH.<sup>10</sup> More women with obstetric problems were admitted, both from Edinburgh and elsewhere, partly the result of contracts for treatment made as part of the expansion of maternity schemes following the Notification of Births (Extension) Act 1915. During the First World War there was increased demand for inpatient beds, and this trend continued in the interwar years. The introduction of National Insurance in 1911, with its maternity benefit element, gave those eligible the means to pay the RMSMH for their treatment after 1913. However, the RMSMH continued to attract the very poor, admitting a disproportionately high percentage of those in

shared accommodation compared with other Edinburgh maternity institutions.<sup>10</sup> If having insurance money put by in a friendly society or similar is an indicator of having a little financial flexibility, only half of the RMSMH patients for whom it is recorded had that support in 1935. At that time, payment of between £2 and £4.10s was expected by the RMSMH, depending on treatment and, while only five of those patients whose payments were recorded were on 'Public Assistance,' a number can be seen to have paid in instalments, with the implication that it was a struggle. When the local authority run Western General (formerly Craighleith Poorhouse) opened its maternity wards, the proportion of births at the RMSMH fell by the same amount.<sup>29</sup>

Throughout its life – it closed and ceased to be independent in 1939, becoming part of the Royal Infirmary of Edinburgh as the Simpson Memorial Maternity Pavilion – the RMSMH recorded patient data in two major series of casebooks, one devoted to indoor (admitted) cases, and one to outdoor (domiciliary). These books owed their existence to Simpson's recognition of the need for accurate midwifery data to improve the management and understanding of labour. Taking the form of a double-page, single-line entry, and remaining largely unchanged throughout the life of the RMSMH, both had the potential to record extensive medical and social data on the mother and child (general information such as last menstrual period, parity, paternal occupation; details of labour; delivery including birth weight/length; and postnatal condition, see Appendix 1). Data are recorded in both the Register of Births and the Indoor Casebook, and an extract from each is shown in Figures 2 and 3, respectively.

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1936 January

No.	Time of Admission	Hour of Admission	Date of Birth	Hour of Birth	Sex	Condition at Birth	Lib. Oc. In.	Mother's Name	Age	No. of Pregnancy	L.M.P.	A.N. V.D.	Height	If Legitimate, Father's Name	Occupation
51	9	5.10 am	Jan 9	3.10 pm	F	A	5 9 1/4	[Redacted]	25	1	April	R	[Redacted]	[Redacted]	Miner
52	9	6. pm	Jan 9	11.10 am	F	A	6 12 1/2	[Redacted]	25	1	April	P	[Redacted]	[Redacted]	Painter
53	9	5. pm	Jan 9	12.40 am	F	A	7 2 2/2	[Redacted]	27	1	April	A	[Redacted]	[Redacted]	Miner
54	9	10.45 pm	Jan 9	11.5 pm	M	A	6 1 1/4	[Redacted]	25	2	March	R	[Redacted]	[Redacted]	Mechanic
55	9	11. pm	Jan 9	7.15 am	F	A	7 7 1/2	[Redacted]	19	1	March	P	[Redacted]	[Redacted]	Surfacer
56	9	11.30 pm	Jan 9	3.25 am	M	A	7 10 1/2	[Redacted]	26	4	April	P	[Redacted]	[Redacted]	Boiler Mechanic
57	10	7.45 am	Jan 10	8.29 pm	F	A	5 - 11	[Redacted]	36	2	April	P	[Redacted]	[Redacted]	Painter
58	9	9 pm	Jan 12	3-302	Abortion			[Redacted]	29	2	Aug.	G	[Redacted]	[Redacted]	Garage Attendant
59	10	8.50 am	Jan 10	1.30 pm	M	A	8 11 1/2	[Redacted]	27	2	April	P	[Redacted]	[Redacted]	Mill Worker

FIGURE 2 Extract from RMSMH Register of Births 1936 (personal details redacted). Courtesy of Lothian Health Services Archive, Edinburgh University Library

Age	Previous Pregnancies		Date of Admission	Date of Delivery	CHILD				RESULT	
	Under 28 weeks	Over 28 weeks			Presentation and Position	Sex	Weight	From Alive or Dead	Mother	
27.	-	1	1. 11. 36.	2. 11. 36.	Vertex R.O.A.	M.	10.0.	SB.	well	S
28.	-	1	1. 11. 36.	2. 11. 36.	Vertex L.O.A.	F.	7.2.	A.	well	W
16.	-	-	1. 11. 36.	3. 11. 36.	Vertex L.O.L.	M.	6.12.	A.	well	W
33.	-	1	2. 11. 36.	2. 11. 36.	Vertex R.O.L.	F.	6.10 $\frac{1}{2}$ .	A.	well	W
36.	-	10	2. 11. 36.	2. 11. 36.	Vertex.	F.	3.9.	SB.	well	S

**FIGURE 3** Extract from RMSMH Indoor Case Book 1936. Courtesy of Lothian Health Services Archive, Edinburgh University Library

Home deliveries were recorded in separate Outdoor Casebooks from 1844–1959. These volumes record details similar to those contained in the Indoor Casebooks, but do not include birth weight or length. In the RMSMH's early years the Casebooks were active records and, as a result, each page can contain entries by a number of different people. By 1936 however, immediate entries were made in case-folders and, as a result, the books are in good condition, with the entries in one person's writing for the whole year (apart from very short periods), suggesting that they were written up later by a permanent member of staff, possibly the matron. The number of women recorded in the Indoor Casebook as admitted in 1936 and reasons are described in Table 1. Of note these differ from the total given by the Medical Officer of Health (MOH) report, which records fewer births at each institution: 2073 Edinburgh Royal Maternity Hospital births and 1114 Elsie Inglis Maternity Hospital births in 1936.<sup>26</sup>

### The Elsie Inglis Memorial Maternity Hospital

In 1904 the Edinburgh Medical Women's Club, led by Elsie Inglis (1864–1917), a pioneering woman doctor, founded the Hospice, an all-female maternity hospital and dispensary based at 219 High Street. From the start, skilful publicity ensured the enterprise was well-supported and admired out of all proportion to the number of cases it treated. For example, it was particularly praised by the MOH at the time of setting-up the Edinburgh Maternity and Child Welfare Scheme, when its staff attended only 4% of Edinburgh births.<sup>10,31</sup> The Hospice was run on provident lines, patients 'banking' a small amount of money each week to offset the cost of their future care, and this requirement for regular visits by its patients ensured that its antenatal clinic was the only one in Edinburgh to be well-attended.<sup>10</sup>

On Dr Inglis' death in 1917, a memorial fund was set up in recognition of her work in establishing the Scottish Women's Hospitals which had served in Serbia and France during the First World War. In 1921, after a

serious fire in the High Street premises, the fund was used to create a purpose-built maternity hospital.<sup>32,33</sup> The EIMMH opened in Spring Gardens, Abbeyhill in 1925 and initially had 50 beds. Its 1936 Annual Report recorded that its staff and pupils had attended 1131 inpatient cases and 591 women in their own homes, delivering approximately one-fifth of Edinburgh births. The MOH report<sup>26</sup> records 1114 births in the EIMMH in 1936. These numbers differ slightly from each other, and the Indoor Casebooks (with 1284 entries), which could be due to different classifications of admissions or different dates of lodging the data.

During the 1930s, annual reports from the EIMMH focused on its medical role and research interests. In 1931 it acquired a Morgenthaler bed for premature or delicate infants, 'an acquisition which has already made possible a more scientific and therefore more hopeful line of treatment', while a postgraduate intensive course on gynaecology, obstetrics and allied subjects for women doctors was introduced in 1933. Between 1931 and 1935 a long-running research project examining maternal morbidity and infection at the EIMMH established that there were fewer infectious cases indoors than outdoors.<sup>32</sup> However, over the same period the EIMMH had a growing financial deficit. When it first opened, there had been several free beds but, if possible, patients were to pay 25–35 shillings for two weeks in a ward, 2 guineas for a two-bedded room, or 3 guineas for a private room, each for a week. In 1927 ward beds increased to 2 guineas for two weeks (although this was considered the minimum, and donations were welcome), while the cost of two-bedded and private rooms each increased by 1 guinea.<sup>34</sup> By 1935 patients unable to pay (presumably) were transferred to the Western.

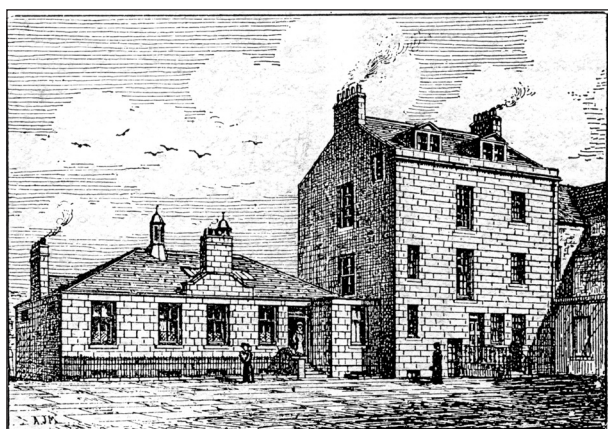
Yet despite these increases, the number of patients did not decline, suggesting that they had more financial reserves than their counterparts at the RMSMH. Analysis of much scantier records similarly implies

**TABLE 2** Number of admissions to Aberdeen Institutions in 1936

Institutions	AMH		Woodend Hospital	Rubislaw Nursing Home	Total
Cases admitted	812	257	69	96	1234
No. of births including twins and triplets	822	261	71	96	1250
No. of stillbirths	80	14	3	6	103
No. of miscarriages	0	0	0	2	2
No. of deaths within 10 days of birth	32	4	1	1	38

AMH, Aberdeen Maternity Hospital

(Sources: AMH Obstetric Register, 1936; Woodend Hospital Midwifery Register; Rubislaw Nursing Home Midwifery Register, 1936; NHS Grampian Archives)



**FIGURE 4** Aberdeen Maternity Hospital, Castle Terrace, Aberdeen. Courtesy of Aberdeen City Libraries

relative wealth – EIMMH patients seldom lived in shared accommodation and were rarely single.<sup>10</sup> Although poverty is relative, and the EIMMH remained a charity with a diligent team of lady collectors and a substantial annual ‘Grant from Edinburgh Corporation Common Good Fund’,<sup>33</sup> it can be conjectured that the Annual Reports focused on its scientific work because it no longer saw itself as providing maternity care to those who could not afford to access it.

Delivery details of both indoor and outdoor cases from the EIMMH were recorded in the Central Midwives’ Board for Scotland Registers. These records do not include birth weight, father’s name, or occupation, and for 1936 only start from September and include 93 cases. The Post Natal Register includes birth measurements

and other data (Appendix 1 and Table 1) including information on postnatal weight and method of feeding, for some cases.

## MATERNITY INSTITUTIONS AND RECORDS IN ABERDEEN

There were 3405 births in Aberdeen City in 1936.<sup>35</sup> The majority of births (55.4%) took place at home, with a significant proportion (44.6%) being admitted to various institutions including nursing and convalescent homes. Births in hospitals (Aberdeen Maternity Hospital and Woodend Hospital) accounted for 33.8% of births. Private nursing homes accounted for 10.5% of births, while other institutions, e.g. convalescent homes, covered 0.5%. Detailed birth records from 1936 are available at the Northern Health Services Archives, Woolmanhill, Aberdeen Maternity Hospital (31.4% of all births, 71.3% of institutional births), Woodend Hospital (2.1% of all births, 4.7% of institutional births) and Rubislaw Nursing Home (2.8% of all births, 6.3% of institutional births).

The data recorded in each of these institutions – general information such as last menstrual period, parity, maternal occupation, details of labour, delivery including birth weight and postnatal condition and feeding method – are summarised in Appendix 2 (available with the online version of this paper), and the number of admissions and their outcome in Table 2. There are fewer admissions in Aberdeen compared to Edinburgh yet the stillbirth rate is similar (8.3%).

### Aberdeen Maternity Hospital

In 1790 the Dispensary in Aberdeen separated from the Royal Infirmary to become the Independent Dispensary and Lying-in Institution. Maternity services were provided by midwives and medical officers, with six physicians overseeing the provision of domiciliary maternity care in the different areas of the city.<sup>36</sup> By the 1890s it was apparent that the Lying-in Department could not fulfil the service requirements of the area, and it was felt that the work of the Lying-in Department would benefit from securing a place where patients whose ‘homes were too wretched’, could be cared for.<sup>37</sup> In 1893 the building adjoining the Dispensary was acquired and equipped, opening in March 1894. By 1900 this accommodation was inadequate and the Department moved to Castle Terrace, and was renamed the Aberdeen Maternity Hospital (AMH) (Figure 4). Further expansion occurred over the years: the number of beds steadily increased from 18 in 1904 to 32 by the mid-30s, and an antenatal annexe adjoining the hospital was opened in 1919.<sup>35-37</sup> The institution, initially under the same management as the Dispensary, became independent in 1912.<sup>35</sup> Its income came from rents, grants, fees (for nursing and from students), payments from (slightly) richer patients and donations from the public.<sup>36</sup>

During the interwar period, AMH faced similar problems to other voluntary institutions, namely increasing demand for inpatient and antenatal services and the rising cost of their provision. In 1912, 453 patients were seen by the staff of the maternity hospital (221 indoor and 227 outdoor) but this more than doubled by 1936.<sup>36</sup> By 1928 the Directors of AMH were considering alternative accommodation and committed to the 'Joint Hospital Scheme', first proposed in 1920, whereby most of the city's voluntary institutions and university medical buildings would be concentrated on one site, Forresterhill.<sup>36</sup> In addition, the 1928 puerperal fever outbreak (after which there were stricter controls on overcrowding, while abortions were no longer admitted), had a stimulating effect on the expansion plans. The new hospital was opened in 1937 at a cost of £52,000, primarily raised through donations. There were 35 bookable beds and two for emergency cases. The antenatal clinic continued at Castle Terrace until a new antenatal annexe was built at the Forresterhill site in 1941.<sup>36</sup> However, even before the move to Forresterhill, AMH was the largest institution providing maternity care in Aberdeen, and also served as a training centre for pupil midwives, maternity nurses and medical students.

AMH obstetric registers from 1916 to 1937 are available and record data from both indoor and outdoor cases. They consist of single-line entries for each patient, recorded chronologically according to the child's date of birth (see Appendix 2. An extract is shown in Figure 5). It is likely that the information in the register was compiled after the patients' admission, delivery and discharge, possibly using more detailed case notes from the time of admission onwards.

**Woodend Hospital**

In 1927, part of Oldmill, the Parish Poor Law hospital, came under local authority management and re-opened as Woodend Hospital, offering 324 beds for both general medical and surgical cases; useful when existing facilities at Aberdeen Royal Infirmary and other institutions failed to meet demand in the city.<sup>38</sup> In addition there were also six maternity beds. Most cases admitted were overflow from AMH, but some were referred to Woodend from Oldmill as the Parish Council of Aberdeen had the 'unrestricted right to send patients... to fulfil their statutory obligations to the sick poor.'<sup>38</sup> The midwifery registers from Woodend Hospital (1928–1946) have survived. These give a double-page per patient with space to record data on attendance at antenatal clinics, date of admission and discharge, maternal characteristics, progress of labour, delivery and condition of child and mother (Appendix 2). Patient details were recorded based on date of admission, suggesting the data was recorded by a midwife during the patient's confinement.

OBSTETRIC REGISTER.									
INFANT									
BIRTH		Sex	If Premature, Uterine Age (Weeks)	If born alive X=Yes O=No	WEIGHT		CONDITION OF INFANT		
Date	Hour				Lbs.	Ozs.	At Birth	On Discharge <small>If not stated, with N. give date</small>	
Oct-9	9.45pm	F	40	X	6	9	S	S.	
Oct-10	8.15am	F	40	X	8	12	S. but legs & feet deformed. Twin.	Unsatisfactory - premature sent to R.A. M.S.H.	S.
Oct-10	4.50pm	M	17"	X	4	0	maurated.		S.
Oct-10	5am	M	20	X	8	0	S.		S.
Oct-11	12.49pm	F	40	X	7	8.	S		S.

**FIGURE 5** Extract from AMH Obstetric Register 1936. Courtesy of NHS Grampian Archives

**Rubislaw and other private nursing homes**

Registration of nursing homes only became compulsory in 1928 and prior to this it is difficult to judge how many beds for maternity patients were available in these institutions.<sup>39</sup> There were several private nursing homes in Aberdeen, offering between eight and 18 beds each. A number primarily provided medical care for infants; two (Cuparstone and Ferryhill) dealt only partly with maternity cases, while five provided accommodation for maternity cases only.<sup>38</sup> In total, 359 private institutional births were recorded.<sup>35</sup> In addition, 13 maternity cases were admitted to Thorngrove Home for Mothers and Babies, and five births took place in Loch Street Home.<sup>35</sup> During 1936, 205 cases were transferred from AMH to other institutions (mostly Thorngrove) owing to limited accommodation.<sup>37</sup> Rubislaw Nursing Home had 17 available beds for mothers, and accounted for 82 live singleton births in 1936 (22.8% of private institutional singleton births). The midwifery registers from Rubislaw Nursing Home (1933–1953) have survived, and have a similar layout to those from Woodend Hospital. For the information recorded see Appendix 2.

**DISCUSSION**

Despite different origins in the 19th century, by 1936 maternity services in both Aberdeen and Edinburgh were remarkably similar. In both, voluntary provision dominated and, in both, babies had a less than one in two chance of being born in an institution (41.2% Edinburgh; 44.6% Aberdeen). The difference between the two percentages may actually lie in the ability to pick out specific nursing home deliveries at Rubislaw, whereas in Edinburgh the MOH did not distinguish in his published data between private deliveries at home and private

deliveries elsewhere – although he could have done, as by this time Nursing Home births were entered in red ink in the City Births Registers. The Rubislaw data suggest that approximately 10% of institutional (that is, non-domiciliary) births were privately-funded; in Edinburgh, counting Register entries suggests 12% of deliveries were in similar private nursing homes.

In both cities, the demand for beds was clearly patient-led, and this is consistent with a study south of the border. Shirley Aucott's detailed analysis of maternity care in Leicester prior to 1948<sup>40</sup> brings out both the demand for non-domiciliary maternity care from 1907, and the wide range available. Although she gives no statistics for the proportion of home and nursing home births (presumably the result of the fragmentary sources and the establishments' small and often transitory nature), the impression is given of a large number of privately-owned, often midwife-run nursing homes and the supportive role they played in mothers' lives, both before and after the Nursing Homes Registration Act.<sup>40</sup> On a larger scale, a table of place of birth in interwar England and Wales published by Marks<sup>41</sup> suggests that the cities most similar to Edinburgh and Aberdeen at this time were Liverpool and Manchester. In Liverpool in 1935, 41% of babies were born in hospital and 59% at home. In Manchester in 1938, exactly half were born in hospital. In London, by contrast, hospital births were 60% of the whole in 1934, and 69% in 1938; the result, Marks argues, of the presence of so many teaching hospitals, both voluntary and local authority-run.<sup>41</sup>

Just as Aberdeen and Edinburgh were similar in choice of place of birth, so they were in the outcomes of that birth, at least as far as the infant was concerned. In both cities the infant mortality rate per 1000 births was under the national figure for Scotland of 82.3 in 1936, being 70.2 in Aberdeen (but 60.5 in Aberdeenshire) and 68.3 in Edinburgh.<sup>42</sup> The stillbirth rate varied between institutions (4.3% in Woodend Hospital, 6.2% in Rubislaw, 9.7% in AMH, 7.0% in the EIMMH and 10.0% in the RMSMH), which could reflect the different populations served by each institution. Jacqueline Jenkinson's study, *Scotland's Health 1919–1948*, focuses on Scottish health policy and draws out wide regional variations in management, provision and outcome. However, although she records contemporary complaints about the lack of use of antenatal clinics by mothers and the lack of antenatal beds, there is limited discussion of provision for delivery.<sup>42</sup>

The overall number of births in Aberdeen is smaller than in Edinburgh, and each city has a different social composition. It should be noted that as 'voluntary' cases (Rubislaw excepted) they were not representative of the population as a whole, coming from the poorer, probably less well-nourished end of the spectrum. This may have implications both for the generalisability of

the findings from empirical research using these groups, and provide an explanation of the subtle differences in findings between the two birth cohorts.<sup>24,25</sup>

## CONCLUSION

This comparison of maternity records and services in Aberdeen and Edinburgh in 1936 was dictated not by any prior assumptions about similarities or differences between the cities, but rather by life course epidemiological studies involving a proportion of their inhabitants as participants in the Lothian and Aberdeen Birth Cohorts of 1936. Nonetheless, this study has brought out the richness of the data available on infants born in hospital in both cities, adding detail to the purely numerical description of the births in the previously published articles which used only the recorded birth weight, length, gestational age and social class of the babies.<sup>24,25</sup> In doing so, this article emphasises the importance of a good understanding of the historical context of their data to researchers interested in life course influences on health and disease.

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