Pay the Midwife!

The Cost of Delivery in Nineteenth-Century Rural West Flanders
*The Case of Midwife Joanna Mestdagh**

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Abstract
This article focuses on the determinants of the economic cost of at-home childbirth in Flanders in the nineteenth century. Literature on the remuneration of medical professionals in the nineteenth century is sparse. Yet the few existing studies show that fixed rates per delivery did not exist during the nineteenth century. Before that time, pricing was influenced by factors such as the professional experience of the midwife, the distance between the residence of the midwife and the client, the social status of the client and the specific circumstances of the client's condition. I analyze these factors with regard to home births that were assisted by a certified midwife, using the casebook of a rural Flemish midwife for the period 1831-1892.

Introduction

Midwifery in historical literature

Since the 1990s, eighteenth- and nineteenth-century midwifery has received a lot of international attention.[1] Yet most publications have focused on the training of midwives and on legislation and regulations about

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1 Hilary Marland, for instance, edited some valuable international collections of research on midwifery: H. Marland, *The art of midwifery. Early modern midwives in Europe* (London 1993); H. Marland and A.M. Rafferty, *Midwives, society and childbirth. Debates and controversies in the modern period* (London 1997).

their duties and tasks. Comparative studies have suggested a wide international variety in the legal working conditions of midwives.[2] In Britain, for example, midwifery was barely regulated until the late nineteenth century.[3] In the Netherlands and Belgium, by contrast, nineteenth-century midwifery was very strictly regulated and well organized (see below).

The dominant images of midwifery in the literature have been biased by the views expressed in the richest sources available with regard to medical practice: published course books for midwives and reports from medical associations.[4] The course books are useful for studying the development of the transfer of medical knowledge among trained midwives, but they cannot clarify how theory was put into practice. The reports tend to put a lot of emphasis on the demarcation of medical competences, implying strong criticism of anyone who crossed the borders of his/her field of action. These sources suggest a negative outlook on the social position of midwives. The medical historians Defoort and Thiery, for example, claimed that in nineteenth-century Belgium the dominant image of midwifes was a negative one of incompetence and that anyone who could afford it would consult a physician-obstetrician instead.[5] According to them, working class women were unable to pay the fees of a trained midwife and preferred to hire an illegal handywoman. These are undue generalisations based on sources created by medical men and ignore the fact that the majority of lower and middle class women, especially in the countryside, underwent home births with the help of a midwife.[6] Because there were fewer doctors in the countryside, elite women living in such areas may also have had less access to obstetricians. The historian Hilary Marland and the nurse Anne Marie Rafferty conclude that: 'despite the many challenges she faced, the midwife was still firmly stationed as the main provider of obstetric care at the close of the nineteenth century in most countries'.[7] Therefore, a closer examination of midwifery practice is necessary.

2 H. Marland and A.M. Rafferty, 'Introduction', in: Marland and Rafferty (eds.), *Midwives, society and childbirth,* 1-11.

3 J. Towler and J. Bramall, *Midwives in history and society* (London 1986) 135-176.

4 K. Velle, 'De vroedvrouwen in de 19de eeuw. Een beroep in de verdrukking?', *Oostvlaamse Zanten* 5:2 (1990) 77; C. Bruneel, 'Ziekte en sociale geneeskunde. De erfenis van de verlichting', in: J. de Maeyer et al. (eds.), *Er is leven voor de dood. Tweehonderd jaar gezondheidszorg in Vlaanderen* (Kapellen 1998) 17-21.

5 P. Defoort and M. Thiery, 'De verloskunde', in: De Maeyer et al. (eds.), *Er is leven voor de dood,* 216 and 217; 'De volksvrouw [...] deed, uit drempelvrees of uit armoede, een beroep op niet-geschoolde krachten'.

6 I. Loudon, 'Midwives and the quality of maternal care', in: Marland and Rafferty (eds.), *Midwives, society and childbirth*, 180-200.

7 Marland and Rafferty, 'Introduction', 7; Towler and Bramall came to similar conclusions for London: Towler and Bramall, *Midwives in history and society*, 160.

There has been very little research on the actual practice. The few existing studies on midwifery practice mainly deal with the social profile of midwives and their caseload, usually in urban contexts.[8] They reveal noticeable parallels in the social position of midwives across Europe: midwives usually originated from or married into skilled workers' or lower middle class households. However, the caseload of midwives varied greatly, even within a region or localities. In Sheffield, for example, midwives delivered babies for between 50 and 200 women per year. For West Flanders, the historian Chris Vandenbroeke estimated that between 1850 and 1890 there were about 87 to 107 births per midwife.[9] The caseload was higher in urban than in rural areas: 109 to 144 births per midwife versus 81 to 86 in West Flanders. Other aspects of midwifery practice, such as childbirth practices, prenatal and postnatal care, and pricing have barely been researched.

The main reason for the scarcity of studies on midwifery practice is the lack of adequate source material. There are very few surviving sources created by midwives or their clients. Many early modern and modern midwives in Europe may have written detailed casebooks about their practice, but only a handful has been preserved.[10] These casebooks have been used to study the careers, income and clients of medical practitioners. These registers typically include the date of birth and the name of the mother or father and some details of the childbirth. The nature and extent of these details vary significantly. In this article, I use the

8 Examples of studies on the practice of midwifery are: T. McIntosh, 'Profession, skill or domestic duty? Midwifery in Sheffield, 1881-1936', *Social History of Medicine* 11 (1998) 403-420, https://doi.org/10.1093/shm/11.3.403; E. Van der Borg, 'Sages-femmes aux Pays-Bas. Image et occupation. Les développements dans la pratique de l'obstétrique à Leyde, Arnhem, Bois-le-Duc, et Leeuwarden, 1650-1865', *History of Science and Medicine* 28:2 (1994) 57-62; H. King, *Midwifery, obstetrics and the rise of gynaecology. The uses of a sixteenth-century compendium* (Aldershot 2007); L. Reid, *Midwifery in Scotland. A history* (Erskine 2011).

9 C. Vandenbroeke, 'De medische konsumptie sinds de 16e eeuw', *Handelingen der Maatschappij voor Geschiedenis en Oudheidkunde te Gent* 34 (1980) 143-165.

10 For example: A. Badger, 'Illuminating nineteenth century English urban midwifery. The register of a Coventry midwife', *Women's History Review* 23:5 (2014) 683-705, http://dx.doi.org/10.1080/09612025.2014.912083; J. Donnison, 'Sworn midwife. Mistress Katherine Manly of Whitby, her work and world', *Midris Midwifery Digest* 17:1 (2007) 25-34; J. Lane, 'A provincial surgeon and his obstetric practice. T.W. Jones of Henly-in-Arden, 1764-1846', *Medical History* 31 (1987) 342, https://doi.org/10.1017/S0025727300046895; H. Marland, *Mother and child were saved. The memoirs (1693-1740) of the Frisian midwife Catharina Schrader* (Amsterdam 1987); A. Tomkins, 'Demography and the midwives. Deliveries and their denouements in north Shropshire, 1781-1803', *Continuity and Change* 25 (2010) 199-232, http://dx.doi.org/10.1017/S0268416010000214; R. Declercq, 'Vierginie Verbiest. Een vroedvrouw uit de duizend', *Heemkundige Bijdragen uit het Meetjesland* 8 (1994) 68-95.

hitherto unexplored casebook of Joanna Mestdagh, a trained midwife in rural Flanders who worked during the period 1831-1892.[11] What is outstanding about this casebook is the detailed information it provides on payments and the long time period it covers. In addition, the availability of good-quality civil registration allowed me to link the information from the casebook to socio-demographic information on professional status, complications at birth, etc.

Research questions

This article focuses on the fees paid for at-home deliveries and, in particular, on the factors explaining pricing in a rural area. Before 1900 home births were the main way of delivering babies. Less than 10 per cent of all childbirths in Flanders occurred in a maternity clinic and the majority of women giving birth there were unmarried.[12] The usual situation was to deliver the baby at home, assisted by a self-employed midwife and some women neighbours. This was especially the case in the countryside, where institutional maternity facilities were lacking. By concentrating on a rural case study, I am adding to the literature on midwifery practice by exploring behaviour in the countryside.

Very little is known about how medical professionals billed their clientele in general. Systematic research on medical fees in nineteenth-century Europe – particularly for maternity services – is rare. In addition, it is hard to draw firm conclusions because midwifery regulations and pricing systems, including the possibility of (partial) payment in kind – varied across regions.[13] The most common records of medical fees are regional averages in reports, governmental statistics and scattered data from individual cases.[14] These data do not allow an analysis of the factors influencing pricing. Some of the surviving casebooks have been used to analyze certain aspects of remuneration. Yet most of them just mention who paid the expenses, but not the exact fee.[15] Only the registers of the Dutch (Frisian) midwife Catherina Schrader (1693-1740) and English obstetrician Thomas Jones (1791-1800) in-

11 State Archive Bruges, Kerkfabriek Dudzele (TBO 21), Item 730: '*Handboek van een vroedvrouw, ontvangsten van verlenen van bijstand bij bevallinge*n'.

12 C. Vandenbroeke 'Zuigelingensterfte, bevallingsstoornissen en kraambedsterfte (17e-19e eeuw)' *Bijdragen tot de Geschiedenis* 60:1-2 (1977) 133-162.

13 Lane, 'A provincial surgeon', 342: 'One of the interesting and unexplored areas of medical history for this period is the kind of fees and annual income that a practitioner might expect to earn in his professional career'.

14 Velle, 'De vroedvrouwen'.

15 Badger, 'Illuminating English urban midwifery'; Donnison, 'Sworn midwife'; Tomkins, 'Demography'.

clude rates, but have not been used to systematically analyze the determinants of childbirth fees.[16]

Nevertheless, some authors have suggested criteria that may have influenced prices for medical services.[17] For Belgium, several authors claim that the number of visits, their duration, the distance travelled, the time of day, the schooling or experience of the professional, the nature and effectiveness of the treatment, the general health status of the patient and his/her economic conditions may all have affected pricing.[18]

In this article, I empirically verify the impact of several of these proposed factors.

Firstly, I examine the prices of all deliveries with regard to elements associated with the midwife's position. I start by analysing price change over time and relate this to the midwife's experience, competition from other midwives and economic fluctuations. Prices would be expected to go up as Mestdagh gains experience, but competition from other midwives or economic crises may have forced her to keep her fees low or to expand her work territory beyond her hometown. This leads to the question: were deliveries outside Dudzele more costly than those within? In the second part of the analysis, I focus on factors connected with Mestdagh's clientele within Dudzele: their socio-economic and migrant status and a limited set of complications at birth. The latter can be seen as proxies of difficult deliveries requiring special care and increased fees. After analysing these factors separately, I put them in a multivariate linear regression model in the third and final part of the analysis. To my knowledge, midwives fees for the nineteenth century have not yet been analyzed with multivariate techniques. Yet controlling for several variables at the same time allows one to identify the strongest factors in pricing.

Research of medical pricing is extremely relevant: firstly, it represents the daily tension between medical practice and the economic aspect of medical care on the one hand and medical ethics on the other hand.[19] Secondly, it is a crucial aspect that shapes the patient-professional relationship. Medical clientele often played a secondary role in

16 Lane, 'A provincial surgeon'; Marland, *Mother and child were saved*.

17 For example: M. Louis-Courvoisier, 'Aspirations éthiques et réalité de la pratique médicale à la fin de l'Ancien Régime', *Canadian Bulletin of Medical History* 29:1 (2012) 38, https://doi.org/10.3138/cbmh.29.1.29.

18 Y. Segers, *Economische groei en levensstandaard. De ontwikkeling van de particuliere consumptie en het voedselverbruik in België, 1800-1913* (Leuven 2003) 179-181; K. Velle, *Arts, geneeskunde en samenleving. Medicaliserimg in België in de 19de en 20ste eeuw* (Doctoral thesis in history, Ghent University 1987) 722

19 Louis-Courvoisier, 'Aspirations éthiques', 29-48, https://doi.org/10.3138/cbmh.29.1.29.

medical history, but medical consumption varied widely across regions and social classes and was influenced by a complex and largely unexplored set of factors. The historians Deneweth and Wallis, for example, found that between 1650 and 1900 medical consumption in the Northern Netherlands varied strongly according to the region and social class.[20] Differentiating within the population is important for breaking stereotypes about health-seeking practices, in this case with regard to childbirth. This article is a first step in understanding the reasons behind this variation. As Lane puts it, casebooks like these 'help to discredit the tenaciously held view that quack and unqualified medical attention was all that the poor might expect'.[21]

Case study

The village of Dudzele

Joanna Mestdagh practiced between 1830 and 1892 in Dudzele, a small village in the Dutch-speaking part of Belgium, less than ten kilometres from the city of Bruges. It is situated in the coastal polder area of West Flanders. Dudzele was selected because of the presence of Joanna Mestdagh's casebook, but it is also an interesting case for other reasons.

First, Dudzele is situated in a high-fertility region. Around 1880, the highest rates of marital fertility in Belgium were recorded in West Flanders.[22] It was not until the beginning of the twentieth century that birth rates started to decline in this province.

During our period of analysis, the crude birth rate (the number of births per 1000 inhabitants) was high in Dudzele: it ranged from 34.5 per 1000 in 1831 to 28.9 per 1000 in 1892. There were some temporary downturns, which coincided with years of economic hardship: the lowest values were found in the aftermath of the potato crisis in 1848 (19.8 per 1000) and during the agricultural crisis of 1882

20 H. Deneweth and P. Wallis, 'Households, consumption and the development of medical care in the Netherlands, 1650-1900', *Journal of Social History* 49:3 (2016) 532-557. Religious denomination could be another factor at play. It has been shown that for example Protestants were more open to breastfeeding in public than Catholics. See: M. Schoonheim, *Mixing ovaries and rosaries. Catholic religion and reproduction in the Netherlands, 1870-1970* (Amsterdam 2005). Different religious groups might also have had different opinions about the interference of male physicians at birth, causing variation in the number of births attended by either midwives or physicians.

21 Lane, 'A provincial surgeon'.

22 R. Lesthaeghe, *The decline of Belgian fertility 1800-1970* (Princeton 1977).

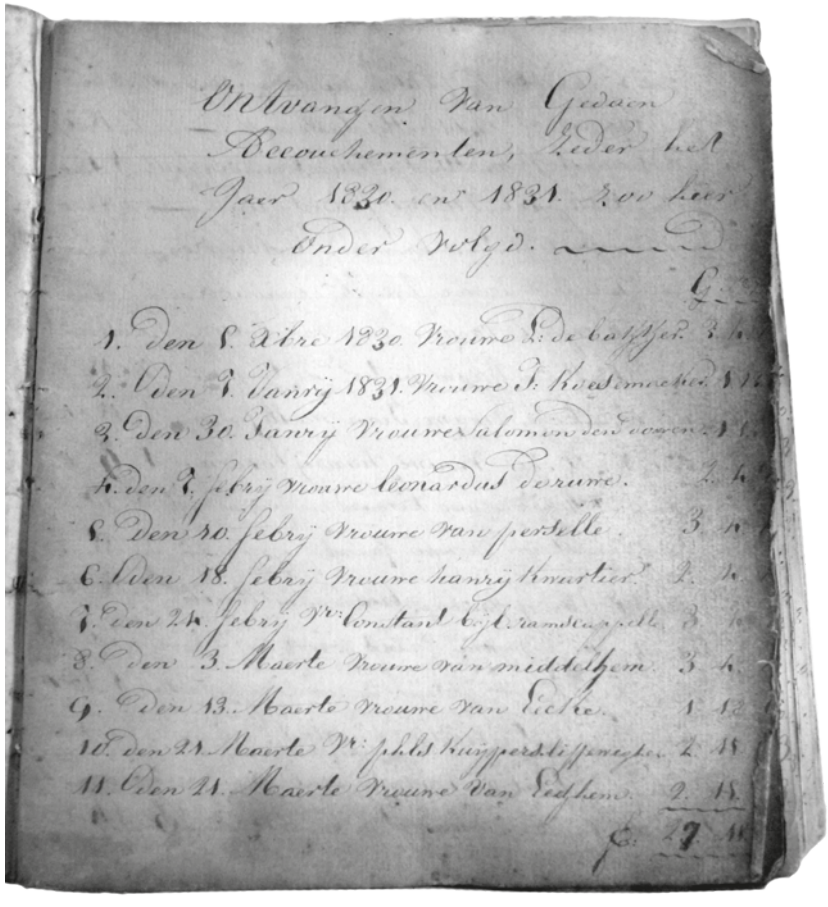
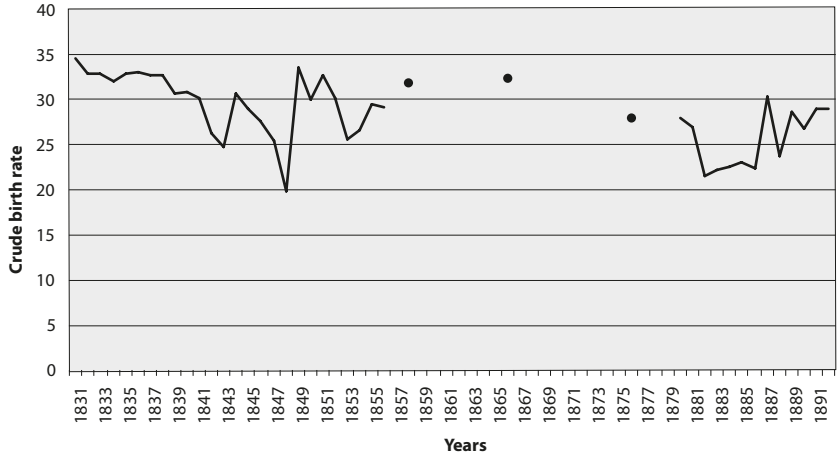


Illustration 1 First page from Joanna Mestdagh's register, titled: 'Ontvangen van gedaen accouchementen zeder het jaer 1830 en 1831 zoo hieronder volgd' (source: State Archive Bruges, Kerkfabriek Dudzele (TBO 21), Item 730: 'Handboek van een vroedvrouw, ontvangsten van verlenen van bijstand bij bevallingen').

(21.5 per 1000). But the crude birth rates always recovered shortly after the crises. The high number of births offers abundant material for performing a systematic analysis of childbirth practices: there were on average 62 births per year. At that time, the high birth rates were unfortunately also associated with high levels of infant mortality.[23] Between 1800 and 1850, the infant mortality (1q0) in Dudzele was 291 per 1000, compared to an average of 179 per 1000 in rural Flanders. This means that over a quarter of the children died before their first birthday. Be-

23 I. Devos, *Allemaal beestjes. Mortaliteit en morbiditeit in Vlaanderen, 18de-20ste eeuw* (Ghent 2006) 43.

Figure 1 Crude birth rate in Dudzele, 1831-1894



Source: Historical Database of Local and Cadastral Statistics (LOKSTAT-POPPKAD), Ghent University, Quetelet Center for Quantitative Historical Research.

cause of these high numbers, the medical practice in this area was closely scrutinised by the provincial medical committees.

Secondly, Dudzele was typified by a straightforward organization of the labour market. The dominant sector was agriculture, in a combination of arable and livestock farming. The area was governed by large holdings from farmer families. Employment was mainly based on casual (day labourers) or contractual agrarian labour (live-in servants).[24] Creating a social classification based on occupational titles is therefore rather straightforward in this community: unskilled (agricultural) workers made up about half of the population and were the poorest group in the community. Farmers – about a quarter of the entire population – were in general an affluent group. In my study, skilled workers, artisans and craftsmen formed a heterogeneous middle group. Physicians, notaries and local politicians make up the local elite. These men usually ran a large farm as well.

Finally, Dudzele was a small village of about 2000 inhabitants. The limited size of the community made it feasible to link the births in the midwife's register to the births, infant and maternal deaths in civil registers. This gave me the opportunity to study birth practices in this community for a period of over 60 years.

24 V. Lecluyse, *Bijdrage tot de studie van de mortaliteit. Dudzele, een noordelijke plattelandsgemeente in het Brugse vrije (18de en 19de eeuw)* (Master's thesis in history, Ghent University 2002) 34.

Legal context

From the end of the eighteenth century onwards, midwifery became strictly regulated in some European areas.[25] In Belgium, the law of 12 March 1818 and the Royal Decree of 31 May 1818 regulated the conditions for legal practice and the division of competences between physicians, pharmacists and midwives. Only doctors, for instance, were allowed to use instruments such as forceps, or supervise hazardous deliveries. Midwives had to consult a doctor if there were complications, but they could independently inject ergotine, caffeine and camphor.[26] The Provincial Committees for Medicine, consisting entirely of physicians and pharmacists, became key institutions, monitoring health care services and supervising the assessment of competence of medical practitioners.[27] Practical experience no longer sufficed to become a certified midwife. Midwives only received a certificate after formal training and an exam organized by this committee. The first official courses were organized at the end of the eighteenth century.[28] In the province of West Flanders, aspiring midwives could participate in courses in Ghent or Bruges.[29] Persons who offered medical services without a diploma or certificate risked prosecution. There were no legal arrangements regarding fees.

Mestdagh went to the midwifery school in Bruges in 1830. What is remarkable is that the very small community of Dudzele already had a certified midwife, Joanna Claeys, at that time.[30] In fact, in 1829 the local authorities had responded to a questionnaire from the province, stating that Dudzele did not need another midwife.[31] Joanna Mestdagh's dossier was not preserved in the provincial archives. Therefore, her reasons for becoming a midwife remain undocumented.

Joanna Mestdagh (°1808-†1895)

The detailed patient listings of Joanna Mestdagh consist of one volume and are preserved in the Belgian State Archive in Bruges. The author's name was not indicated on the document, but by using the annual lists of certified midwives, published by the provincial authorities, it

25 J. Gélis, *De boom en de vrucht. Zwangerschap en bevalling voor de medicalisering* (Nijmegen 1987) 77.

26 Marland and Raffery, 'Introduction', 1.

27 Law of 12 March 1818. Recueil des actes et des lois, vol. 1, 178.

28 Gélis, *De boom en de vrucht,* 53-61; Arickx, 'Vroedvrouwen uit de kasselrij Kortrijk', 219.

29 Provincial Archives West-Flanders (PAWV), A/1815-1830/Series2/P.B./714.

30 Claeys even won a bronze medal at her graduation in 1815, see: BE PAWV A/1815-1830/Series1/P.B./395.

31 BE PAWV A/1815-1830/Series2/P.B./726.

was possible to identify Joanna Mestdagh as the only possible creator.[32] There were other midwives active in Dudzele between 1831 and 1892, but their periods of practice did not correspond with that of the casebook.[33]

Joanna Mestdagh was born into a middle class family in Dudzele: her father was the village schoolmaster and sacristan. She never married and although all her five siblings retained their middle class position, she died in poverty: her legacy was only 6 Belgian francs, equivalent to about 3 to 5 days' wages of a labourer.[34] She lived with one of her sisters and one of her brothers until they passed away. After that, she lived on her own for three decades. Through her father's (and brothers') position as a sacristan, the family was closely connected with the local priest. There are also indications of a good relationship with the local physician Dr. Karel Olleviers: when Mestdagh's brother Bernard married in 1828, he was one of the witnesses.

The casebook

Joanna Mestdagh's casebook contains information on 1909 deliveries for the period 1831-1892 (of which 1549 took place in Dudzele).

This is an average of 31.3 cases per year. This figure is much smaller than Vandenbroeke's estimates for rural West Flanders during this period.[35] This is largely due to the small number of births per year in Dudzele, which was on average 62 (see Figure 1), and to the presence of other midwives in the community. Until 1847, Mestdagh had one fellow-midwife and delivered indeed around half of the births in Dudzele. Between 1847 and 1860 Mestdagh faced the competition of two midwives and assisted only about a third of the births. During a small number of years (1872-1876) Mestdagh was the only midwife in Dudzele. At that time she delivered about 75 per cent of all births. After a new midwife arrived in 1877, her share in the Dudzele deliveries consistently dropped.[36] Considering Mestdagh's advanced age of 69, this may indicate the new midwife acted as her replacement after she retired.

The casebook contains not only standard demographic information on the father and/or mother (dates, names, marital status, etc.) for all

32 Provincial government of West-Flanders, *Bestuursmemoriaal West-Vlaanderen,* Brugge, 1820-1900.

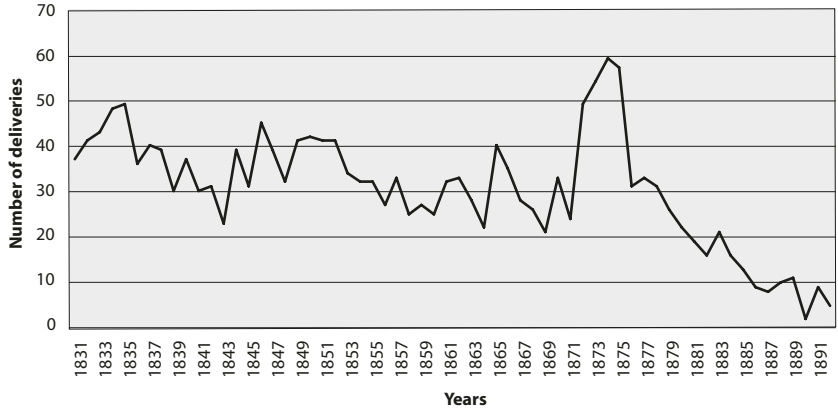
33 Joanna Claeys was a midwife between 1815 and 1860. Between 1847 and 1872, Claeys's daughter Rosalie Hoemaecker also worked as a midwife. Finally, Sidonie Tytens started practicing in 1877.

34 State Archives Bruges, Legacies, nr. 312, 19/9/1893.

35 Vandenbroeke, 'De medische konsumptie', 143-165.

36 More detailed data will be published in a separate article, which is in preparation.

Figure 2 Caseload per year, Joanna Mestdagh 1831-1892



Source: Casebook Joanna Mestdagh.

the deliveries Mestdagh attended, but also the cost and details of who paid for these expenses. In some exceptional cases, particularities, such as premature births, are briefly mentioned in the margin. She also mentioned twin births, indicated whether the local poor relief institution paid the expenses and noted the village where the childbirth took place (if not in Dudzele). The register itself allows one to study the impact of the midwife's experience and the place of birth on the pricing, but it does not inform us about the client's social status or complications at childbirth (with the exception of multiple births). Deliveries reimbursed by the poor relief institutions could not be integrated into the analysis of pricing because Mestdagh did not register the exact fees in these cases.

For some British cases, researchers have tried to link information from midwives' casebooks to more typical demographic sources, censuses and parish registers to include more information on the clients' profiles.[37] The quality of the data, however, does not generally allow for in-depth considerations because data on stillbirths or occupational titles are missing. The Belgian nineteenth-century civil registration does allow one to do this. I linked all the births from the register that occurred within the village of Dudzele to the birth certificates of Dudzele, as well as to the death certificates to identify stillbirths. The birth certificates mention the occupation of the new-born's father and the birth place of both parents. I also used the death certificates to detect maternal mor-

37 Lane, 'A provincial surgeon' and Tomkins, 'Demography and the midwives'.

tality: all deaths of women within 31 days of a delivery were classified as maternal mortality. For deliveries that took place in communities outside Dudzele, it was not feasible to link the information from the register with civil registration data. As a result, the part of the analysis that includes social status and complications is limited to the village of Dudzele itself.

Before I start analysing the possible factors influencing the pricing, I give a brief overview of Mestdagh's overall rates.

Standard fees

While the legal conditions of midwifery and the demarcations of midwives' tasks were well specified, there is very little surviving information on customary fees. For all medical professionals, there were no deontological codes in this regard and the practitioner decided on what he or she charged.[38] On the countryside however, doctors and midwives mainly served a poor clientele and were forced to keep their prices low.

From publications and other documents from medical associations some information on the fees of male practitioners can be derived. In 1844 a professional periodical mentions the rate of 0.5 to 0.6 Belgian francs (BEF) as the maximum fee for physicians on the Flemish countryside.[39]A more detailed example is available for West Flanders: the diary of *surgeon-accoucheur* Pierre Ignace Wolfcarius.[40] Wolfcarius worked in a rural village, about 30 kilometres from Dudzele. Between 1810 and 1833 he recorded the dates and reasons for home visits, as well as the medications he provided and the price. The data are incomplete and hard to interpret since he charged the household head for several consultations at once, which was a common practice on the countryside. Nevertheless, it can be determined that the fees varied between 14 nickels and over 9 guilders, which equals 0.8 to 16.8 BEF. Sixty per cent of the fees were below 2 guilders or 3.6 BEF. This usually included two to three visits and several doses of medication. The prices on the higher end included frequent visits and small surgical procedures. The fees for a home visit on the countryside were indeed low but these visits probably took much less than an hour. Neither of these data refers to deliveries, which according to a medical periodical from 1911 took 'long hours in attics

38 Velle, *Arts,* 722.

39 *Gazette Médicale Belgique* 7:24 (17 June 1849) 113, cited in Velle, *Arts*, 954.

40 State Archive Bruges, Familiearchief Algemeen (INV 50), Item 478: *'Dagboek van Pierre Ignace Wolfcarius, "chirurgien accoucheur" te Ardooie, 1810-1833'.*

and slums, performing surgeries if necessary and visiting the parturient woman for eight to ten hours'.[41] Naturally, the price for such an intervention was higher: the journal mentioned a customary fee of 5 BEF, which was considered completely insufficient. Even when more physicians' fees would be available, it would be hard to compare their pricing with that of midwives since medical doctors more often intervened in complicated deliveries.

The data for midwives' fees are equally sparse and based on official statistics and ego-documents. This information shows a lot of regional variation in costs. Still, it seems that throughout the nineteenth century, the normal price for a delivery in rural Flanders was 2 to 5 Belgian francs.[42] This was more or less equivalent to what a day labourer earned in two to four working days. In 1890 in the village of Deerlijk, for example, the midwife earned 2 Belgian francs per delivery.[43] In the same year in the village of Essen (near Antwerp) the normal price was 2.5 to 5 francs, with aftercare included.[44] In 1806-1809 a midwife in the city of Aalst earned on average 3.3 francs per delivery.[45] These figures are averages and do not highlight the variation in the prices charged by a single midwife. Figure 3, based on Mestdagh's casebook, does indicate the existence of standard rates.

This is in line with the few historical studies that provide payment. The English obstetrician Thomas Jones, for example, assisted the delivery of 422 women during the nine years he kept records of his obstetric practice.[46] This is an annual average of 46.9. Jones mentioned the price of individual deliveries, but his registration was not systematic. Yet according to Joan Lane, who analyzed his casebook, he charged a standard fee of 10 shillings and 6 pence. This price was found in 317 (75.1 per cent) of the cases. Larger fees were rare. The number of deliveries that were free of charge amounted to 65 or 15.4 per cent of the total number of births. Jones did receive an annual sum of 6 pounds and 6 shillings from the local parish to cover the costs of most of these women.

41 *Gazette Médicale Belgique* 23:47 (24 August 1911) 455, cited in Velle, *Arts*, 879.

42 Vandenbroeke, 'Zuigelingensterfte', 147-148; Velle, 'De vroedvrouwen', 79.

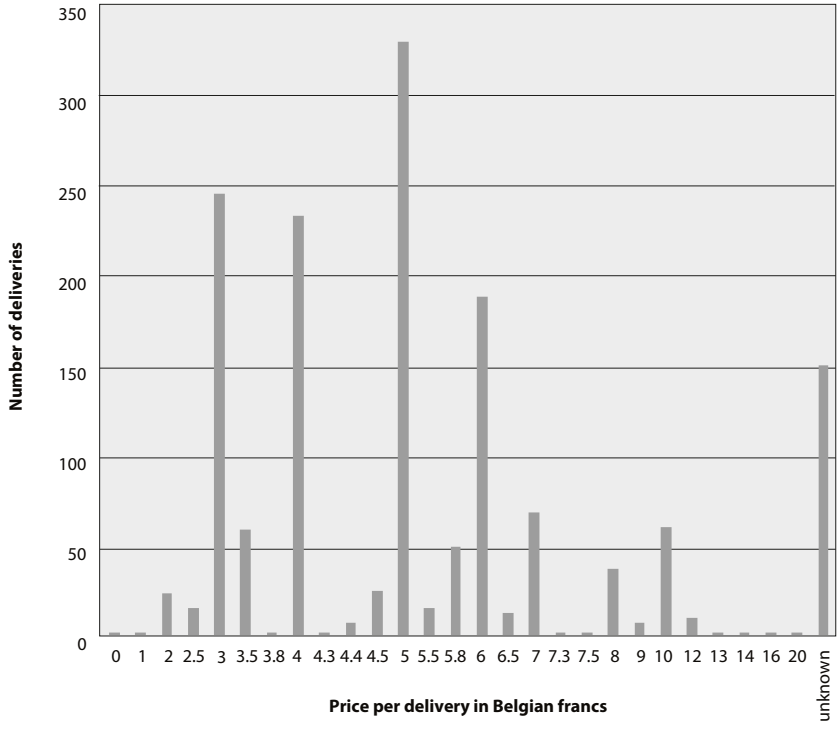
43 H. Defraeye, 'Van borelingen en vroede vrouwen', *Derlike, 3 Maandelijks Tijdschrift van Heemkundige Kring Dorp en Toren Deerlijk* 18:4 (1996) 119.

44 K. Celis, 'Abortus in België 1880-1940', *Journal of Belgian History* 26:3-4 (1996) 75.

45 S. De Veirman, 'Van gevaarlijke tot vroede vrouwen. Oost-Vlaamse vroedvrouwen in de achttiende en begin negentiende eeuw', *Handelingen der Maatschappij voor Geschiedenis en Oudheidkunde Gent* 65:1-2 (2011) 177-204. DOI: http://dx.doi.org/10.21825/hmgog.v0i0.1062.

46 Lane, 'A provincial surgeon', 338.

Figure 3 Absolute frequencies of delivery prices in the casebook of Joanna Mestdagh, 1831-1892*



Source: Casebook Joanna Mestdagh.

** In all calculations in this paper, twin births are only counted once. Until 1874 fees were mentioned in guilders, stivers and farthings These fees can easily be converted into Belgian francs, as 1 guilder = 1.814 Belgian francs, 1 stiver = 0.921 Belgian francs and 1 farthing = 0.023 Belgian francs. After 1874 Mestdagh registers her fees in Belgian francs. The standard pricing, however, remains continuous throughout her career.*

In contrast to Jones, Mestdagh does not seem to have charged a single standard price. She had four fixed rates: the most frequently paid fee was 5 Belgian francs (N = 330), followed by 3 francs (N = 246), 4 francs (N = 234) and 6 francs (N = 188). In 151 of the cases, the register does not mention the exact fee, mostly (N = 111) because the local poor relief institutions paid. The four standard fees make up 70 per cent of the 1419 deliveries for which a fee was mentioned. Mestdagh's pricing is thus in line with the above-mentioned average fees in Flanders, although her rates are somewhat towards the high end of the range.

In the remainder of this article I will analyze some factors that possibly affected the fee. However, the occurrence of multiple fixed rates *and* deviations from that may also be influenced by underlying factors that

remain out of sight. First, the specific conditions of each childbirth are not registered: the duration of the delivery, the use of medication, the amount of pre- and postnatal care, the timing of day, etc. It is possible that the four standard rates represent different types of caregiving or differ between day- and night visits. Second, the register does not inform us about payments in kind that could have complemented a fee. This hiatus may hide underlying mechanisms and inequalities: possibly unskilled workers, for instance, paid a lower fee than farmers because they received less care.

The midwife's perspective

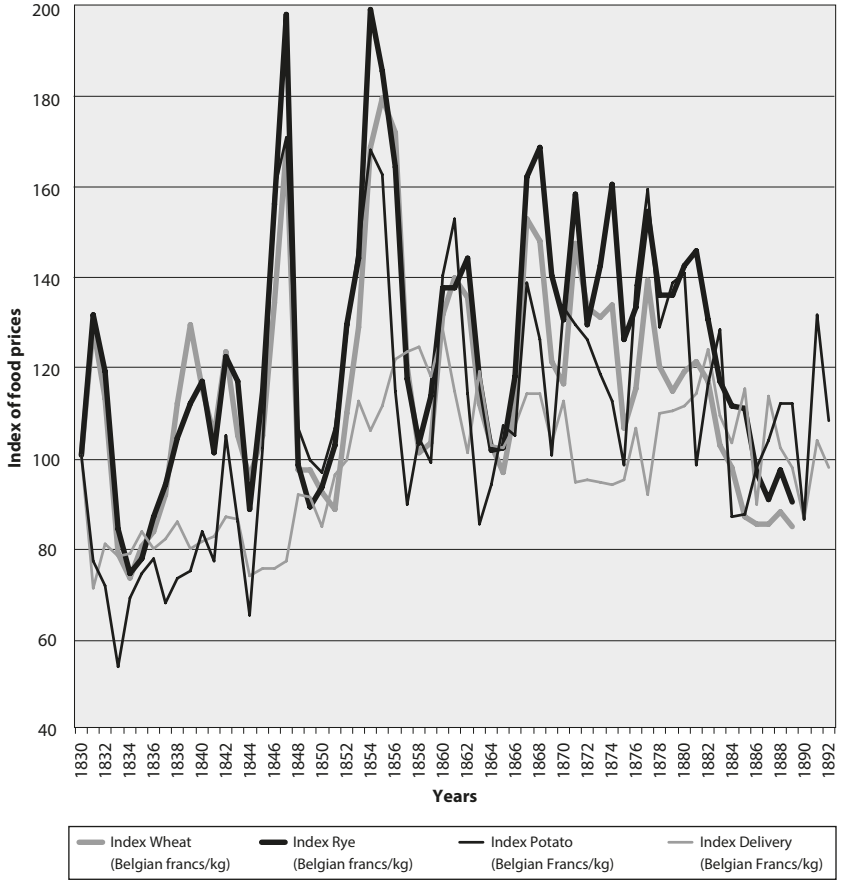
Price change over time: a matter of professional experience, economic circumstances or competition?

The first factor that may have influenced the prices of delivery was the work experience of the midwife. One might expect more experienced midwives to charge higher fees. However, economic fluctuations may also have impacted the fees. In Figure 4, I compare the average annual fees from Mestdagh's casebook with the prices of some basic foods on the market in the neighbouring city of Bruges.

Firstly, the graph suggests three stages in Mestdagh's career. Until 1847, the average prices were typically just under 5 Belgian francs. From 1848 to 1860, the average fees increased rapidly up to a maximum of 7.4 Belgian francs. During the last three decades of her career, the prices followed a gentle downward trend, towards an average of 5 Belgian francs, with a lot of annual fluctuations. Consequently, over the course of her career there was no consistent increase in the fees paid to Mestdagh.

Secondly, the price curve for deliveries exhibits some consistency with the curves for food prices. The fit is not perfect, but the curves are parallel for most years. Only in the years 1865 to 1880 did Mestdagh's fees remain relatively stable, while food prices were temporarily at the higher end of the range. To evaluate the correlation between the mean annual birth fees and grain and potato prices mathematically, I calculated Pearson's correlation coefficients. The correlation between Mestdagh's fees and rye prices is weak but positive (coefficient of 0.289) and moderately significant (p-value = < 0.05). Between birth fees and potato prices there is a moderately positive (0.411) and highly significant (p-value = < 0.001) correlation. This means that if rye and potato prices went up, the same happened with Mestdagh's fees. When basic foods

Figure 4 Average price per delivery per year (1830=100), compared to average food prices on the Bruges market



Source: Casebook Joanna Mestdagh; C. Verlinden, Dokumenten voor de geschiedenis van prijzen en lonen in Vlaanderen in Brabant (XIIIe-XIXe eeuw), Part 4 *(Brugge 1973) 177-208.*

became more expensive, Mestdagh may have had to increase her own prices in order to maintain her standard of living. After all, she only delivered babies for a small number of women per year and relied completely on her own income after her siblings had died. There is no significant correlation with wheat prices, the most expensive grain.[47]

47 Results for correlation with wheat price: coefficient 0.245 and $p > 0.05$. In 1847 and 1854-1856 food prices peaked enormously. To eliminate the potential bias from these years, I recalculated the Pearsons coefficients without those years. The results gain significance and strength; the correlation coefficient between annual birth fees and rye prices is 0.341 ($p =< 0.01$) and between birth fees and potato proces 0.490 ($p =< 0.001$). The results for wheat are still insignificant: 0.244 and $p > 0.05$.

It would be interesting to compare Mestdagh's annual fees not only to food prices but also to the wages of agricultural workers, who made up most of her clientele. However, data on nineteenth-century rural wages are scattered and do not allow to reconstruct a clear evolution over time. Moreover, some workers also received part of their payment in kind, which complicates comparisons. Yet, some general patterns can be discerned. For the first half of the nineteenth century Kint found that during the 1820s and 1840s the daily wages of day labourers in East Flanders remained relatively stable, at least in polder areas.[48] There were around 1.2 BEF. Between 1830 and 1846, in the province of West Flanders a day labourer earned on average 1.15 Belgian francs a day.[49] The wage of an urban industrial worker at that time was over 2 BEF. By 1880, in the agricultural district of Bruges agricultural workers received a daily wage of 1.66 Belgian francs a day.[50] For the period 1880-1895 a decrease of land workers' yearly income has been documented.[51] In the beginning of the twentieth century (1909-1914) the wages of land workers (1.9 to 2.7 BEF) in East and West Flanders were still far below the general average (5.1 BEF) of all wage workers. Unfortunately, a detailed overview of fluctuations in the wages cannot be made or related to Mestdagh's prices. The figures given here however suggest only a slight increase over the course of the nineteenth century.

A final factor seems to have impacted on the annual average prices: the presence of other midwives in the community. As mentioned above, Joanna Mestdagh started her career when another midwife, Joanna Claeys, was already active in the village. Since Dudzele only had around 2000 inhabitants, this means that the village had about 1 midwife per 1000 inhabitants. This is much more than the average community in the province of West Flanders, which, even in 1873, only achieved 0.4 midwives per 1000 inhabitants.[52] It could be that Mestdagh and Claeys had mutual agreements about the geographical division of work within Dudzele. Both midwives lived in the centre of the village and had similar access to all outskirts of the municipality. Unfortunately, the population registers of

48 Ph. Kint, *Prometheus aangevuurd door Demeter. De economische ontwikkeling van de landbouw in Oost-Vlaanderen 1815-1850* (Amsterdam 1989) 399-413.

49 Segers, *Economische groei*, 332 and 'Historical Database of Local and Cadastral Statistics (LOKSTATPOPPKAD), Ghent University, Quetelet Center for Quantitative Historical Research'.

50 Ministry of Agriculture, *Recensement Agriculture* 1880.

51 T. De Moor, 'Loonarbeid tijdens de overgang van traditionele naar moderne landbouw', *Belgisch Tijdschrift voor Nieuwste Gechiedenis* 31 (2001) 43-57.

52 Ministère de l'Interieur, *Annuarire de Statistique* 1874.

Dudzele do not mention street addresses so it is impossible to determine the exact residence of the clients. The registers roughly indicate boroughs ('North', 'South', etc.) but no clear spatial distribution could be derived from this. It is more plausible that Claeys and Mestdagh were fierce competitors. In 1846, Rosalie Hoemaecker (Claeys's daughter) also started practicing. As a result, until 1860, the year of Joanna Claeys's death, there were no less than three midwives in this small community. This period corresponds exactly with the second stage, a time of increasing average fees in Mestdagh's register. This requires further scrutiny: in the next paragraph I analyze whether an expansion of her work territory in the years of increased competition may have affected Mestdagh's average prices.

Work area

The competition Mestdagh faced in her own hometown may have encouraged her to look for clientele in surrounding communities. Table 1 gives an overview of her work commutes.

Table 1 Deliveries of Joanna Mestdagh in and outside Dudzele, 1831-1892

Year	Experience	Per cent deliveries outside Dudzele	Average fee in Dudzele in Belgian francs	Average fee outside Dudzele in Belgian francs
1831-1835	0-4	26	4.3	5.2
1836-1840	5-9	18.2	4.5	6
1841-1845	10-14	20.1	4.4	5.6
1846-1850	15-19	18.4	4.4	6.6
1851-1855	20-24	31.2	4.5	9.5
1856-1860	25-29	34	5.7	9.9
1861-1865	30-34	18.2	5.5	10.1
1866-1870	35-39	13.6	5.8	10.1
1871-1875	40-44	10.8	5.1	10.2
1876-1880	45-49	6.9	5.8	9.9
1881-1885	50-54	15.4	6.1	9.4
1886-1890	55-59	4.2	5.6	6.7
1891-1892	60-62	5.6	6	2.8

Source: Casebook Joanna Mestdagh.

Overall, 10.7 per cent of the deliveries in the casebook took place outside of Dudzele. Yet, there were two stages in Mestdagh's career during

which the number of cases outside Dudzele peaked to over 25 per cent of the total number of deliveries. This was the case during the first five years of her practice and, indeed, the period 1851-1860, when Mestdagh faced two competitors. Pressure to find new clientele does seem to have been important. Fees for deliveries outside Dudzele were noticeably higher than for births occurring within the village and contributed to the increase in average annual prices, as displayed in Figure 5. Nevertheless the most served municipalities were located in the vicinity: Lissewege (73 deliveries) lies within a five-kilometre range and Koolkerke (88), Zuienkerke (39), Ramskapelle (27), Sint-Kruis (22) and Oostkerke (19) all within a ten-kilometre range. Unfortunately, my data from surrounding villages as well as the inaccurate recordings of addresses in the Dudzele population registers do not allow calculating the actual distance from Joanna's home to the places of delivery. Therefore it remains unclear whether the distance, the fact that Joanna crossed the communal border or other factors, influenced the higher fees outside Dudzele. In 1847 a doctor from the French speaking part of Belgium suggested an arrangement where midwives would receive 1 BEF extra per five kilometres outside of their regular work terrain.[53] This never became an official regulation and it is unclear what could be considered as Mestdagh's regular work terrain. In any case, Dudzele was only 21.6 square kilometres. This was manageable by foot and should not have affected pricing.

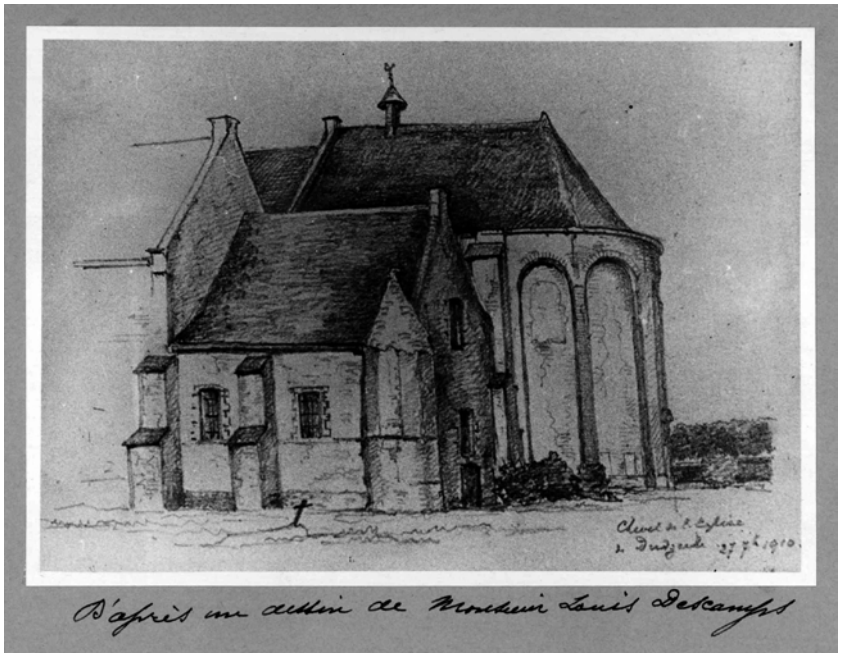
Table 1 also indicates that Joanna Mestdagh's fees within Dudzele rose from the period 1856-1860 onwards. While the place of delivery clearly affected pricing in some way, experience was important too, at least within Dudzele: prices did go up rather consistently over the course of Mestdagh's career.

Other studies of obstetric and midwifery practices have found as well that professionals served multiple communities. Thomas Higgins, an eighteenth-century English man-midwife, for instance, operated in no less than 29 parishes.[54] Frisian midwife Catherine Schrader also had clients who lived outside Schrader's place of residence. These clients paid the midwife's travel expenses.[55] In the case of the eighteenth-century English man-midwife Thomas Jones, however, Lane notes: 'The distance Jones travelled to visit a case or, except for a couple of clients, the

53 Velle, *Arts*, 994.

54 Tomkins, 'Demography', 203.

55 Marland, *Mother and child were saved*, 14.



Drawing of the Church of Dudzele (source: Ghent University Library, 'Églises. Dudzeele', Object ID: archive.ugent.be:802C6DEE-9F4E-11DF-AD7B-6F78C2C209CF, Image not adapted, Licence: https://creativecommons.org/licenses/by-sa/4.0/).

time and trouble expended, appear not to have been significant factors in his scale of fees'.[56]

The Dudzele clients' perspective

Linking the data from the casebook to the civil registration data is a laborious task that had to be limited to Mestdagh's clients living within Dudzele at the time of childbirth. In the remainder of this article, I will first separately examine the impact of the client's social and migrant status and of complications at birth on payments.[57] Subsequently, I will analyze the impact of these factors simultaneously in a multivariate model.

56 Lane, 'A provincial surgeon', 342.

57 Other factors related to the clients profile, such as the number of dependent children in the household, could not be incorporated at this stage because of inaccuracies in the source material.

Social and migrant status

It has been suggested that people with lower incomes paid a reduced fee.[58] But there has been hardly any systematic research analysing if and how certified midwives *adapted their prices* to the ability of their clients to pay. In this section, I distinguish between social groups by using the occupation of the child's father as a proxy for social status. Unwed mothers make up a final group. As stated above, the average price of a delivery was equivalent to two to four days' wages of an agricultural labourer. Joanna's prices were at the high end of the range, but she might have used different rates according to her client's social position. Among her clients, five status groups can be distinguished.

The largest group (38.63 per cent) consists of unskilled workers, of which the majority presumably belonged to the poorest classes. These people were registered as 'worker', 'labourer' or 'agricultural worker'. Unwed mothers were a second group with a likely unfavourable social status. Farmers make up the third group and artisans, craftsmen and skilled workers are combined into a fourth category. This latter group consists of butchers, bakers and farriers, as well as masons and railway workers. For these groups it is hard to determine their labour income since many of them were self-employed and did not receive a wage. Yet in the polder area of Flanders farmers were usually more affluent than workers. Artisans, craftsmen and skilled workers were a very diverse group. The fourth group consists of local elite men: mayors, notaries, physicians, etc. If prices varied across occupational groups, we would expect to find higher fees for artisans, farmers and elite fathers than for workers. The results are shown in Table 2. I have given both the average and modal fees. The mode is an appropriate measure here because of the use of standard fees, as demonstrated in Figure 3.

I also consider the effect the migrant status of the child's parents. The large farms in Dudzele attracted labourers from surrounding communities. Migration – even over a short distance – might have resulted in a less strong inclusion in the local social network. Midwives might have used different fees for people in and outside of their network. I did not have detailed information about the date of entry so I used the birthplaces of the parents as a proxy. I further distinguished between the mother and father. Therefore, only legitimate childbirths have been included in this part of the analysis.

The results indicate a clear trend: unmarried women and labourers paid the lowest and farmers and the local elite the highest fees. This outcome

58 Velle, 'De vroedvrouwen', 78-79.

Table 2 Fees according to social and migrant status, Joanna Mestdagh, 1831-1892

Social status (all births in Dudzele)	Modal fee (BEF)*	Average fee (BEF)	N
Unwed mothers	3	3.52	27
Unskilled workers	3	3.89	527
Artisans/craftsmen/skilled workers	5	4.89	408
Farmers	5 and 6	6.47	393
Elite	10	7.13	36
Total	**5**	**5.00**	**1391**
Chi2(108) = 915.5512, Prob > chi2 =0.000			
Migrant status (legitimate births in Dudzele)	**Modal fee (BEF)**	**Average fee (BEF)**	**N**
Both local	5	5.03	464
Father local, mother migrant	5	4.85	402
Mother local, father migrant	5	4.85	279
Both migrants	5	5.41	234
Total	**5**	**5.03**	**1379**
Chi2(81) = 179.5342, Prob > chi2 =0.000			

** BEF = Belgian Francs*
Source: Casebook Joanna Mestdagh.

clearly shows that midwives adapted their fees according to the social position or wealth of their clients. The results for migrant status are less straightforward. While the outcome is significant, the pattern is not clear: couples where one of the parents is born elsewhere pay a lower fee.

In the literature, there are indications that other midwives or obstetricians also adapted their prices. For the man-midwife Thomas Jones, the social status of the patient seems to have been the main reason for deviating from his standard fee of 10 shillings and 6 pence.[59] There was a fixed fee per patient, which did not change over their reproductive career. Lane linked the records from Jones's casebook to other data from poor relief institutions, parish registers and other sources and observed that the better off paid more than the usual fee. Very similar results were found for the Frisian midwife Catherina Schrader, who wrote detailed reports about the deliveries she assisted between 1693 and 1745, including the occupation of the child's father and the fee paid.[60] Schrader fixed a fee for each family. This was most likely related to the socio-eco-

59 Lane, 'A provincial surgeon', 342-344.

60 Marland, *Mother and child were saved*, 8 and 14.

nomic status of the family: the local baker, for instance, paid 3 guilders per delivery, while a noble family paid up to 66 guilders. Sometimes she was also paid in kind: for example, she received a pair of slippers from a shoemaker.

Childbirth complications

Finally, complications during delivery or abnormalities at birth might also have affected the fees. However, defining a 'complication' is not straightforward. Practitioners had different conceptions of what a 'complicated delivery' was. Most nineteenth-century registers mention stillbirths and maternal deaths but it is not clear how reliable the registrations are.[61] Therefore, I use a broad definition of 'complications'. It refers both to perinatal and maternal deaths, as well as to rare circumstances such as twin births.

Joanna Mestdagh does not give an elaborate description of the childbirths she assisted. Exceptionally, she mentioned two premature births in the margin of her casebook, both of them occurring in the same family. She did mention twin births. Yet by linking the data from her register to birth and death certificates I attempted to identify some indications of complicated births. Death in childbirth, stillbirth and infant death within the first week of life could all be markers of difficult deliveries. Evidently, these are rough indicators. I have no information on abnormal presentation of the foetus, preterm deliveries, etc. Nevertheless, the results in Table 3 do demonstrate a clear impact on pricing.

Table 3 Fees for normal and unusual deliveries*

Type of complication (all births)	Average price	N
No complications	4.96	1324
Maternal death	7.24	4
Stillbirth	5.64	30
Neonatal death	5.47	16
Twin birth	6.02	17
Combined complications	5.71	7
Total	**5.02**	**1398**
Chi2 (26) = 73.2898, Prob > chi2 = 0.000		

** Because of the small category sizes, the modal values are not shown here.*
Source: Casebook Joanna Mestdagh.

61 Donnison, 'Sworn midwife', 32-33; Tomkins, 'Demography', 222-223.

The average fee for all types of abnormalities, even though the numbers are small, was higher than for deliveries with a normal outcome.

Two other practitioners that have been studied gave more elaborate descriptions of difficult deliveries. First, eighteenth-century English provincial surgeon Thomas Jones described difficulties for 78 out of the 422 cases he assisted between 1791 and 1800.[62] This amounts to 18.5 per cent. These difficulties did not necessarily result in a stillbirth or death in childbirth and could result in a successful delivery. Lane's analysis of Jones's practice, however, does not take into account perinatal mortality and maternal mortality during the first month after childbirth. Jones did mention the type of abnormality in his register. The most common problems were anomalous presentation of the foetus, multiple births, premature births, miscarriages, protracted labour and stillbirths. He used instruments in 26 (or 6.2 per cent) of the 422 cases. In most of these cases with complications, Jones's clients paid the usual fee of 10 shillings and 6 pence. Yet there were some exceptions: in two cases the patient paid 2 pounds and 2 shillings and in two other instances 1 pound and 1 shilling was paid. However, complications do not seem to have had a systematic impact on Jones's pricing.

In the notes of the Frisian midwife Catherina Schrader (1693-1740), there are 122 cases out of a total of 3017 births (about 4 per cent) that were indicated as 'bad and heavy complicated'.[63] Twenty of these cases resulted in maternal mortality. As with Thomas Jones, the most common complications consisted of abnormal presentation of the foetus: there were at least 16 cases of face presentation and 67 cases of breech presentation. On top of the problematic births, there were also 72 multiple births (including two triplet births). Marland, who analyzed Schrader's notebook, suggests that 'some relationship between remuneration and workload' existed.[64] For example, there is an indication of a client who paid twice the normal amount 'after a heavy delivery'. The case of a baker who had 13 children also shows that special circumstances could influence the fee: the family paid a higher fee for the 'heavy' deliveries of his second wife than they had for the ones of his first wife. Marland, however, does not perform a systematic analysis of how abnormalities influenced pricing.

62 Lane, 'A provincial surgeon', 339-341.

63 Marland, *Mother and child were saved*, 30.

64 Ibidem, 14.

Multivariate analysis

So far, I have studied each factor potentially affecting the price separately. For nearly all factors, except migrant status, clear patterns can be found. While experience did not initially seem to generate a straightforward outcome of increasing remuneration, it did when the focus was restricted to deliveries in Dudzele. Yet economic fluctuations also potentially influenced birth fees. Keeping the focus on Dudzele, I also found that the client's social status and unusual childbirths affected pricing. The outcomes are in line with earlier but less systematically investigated findings in the literature.

The next step is to analyze the relative impact of the factors that operated within Dudzele: the midwife's experience, the social and migrant status of the patient, the occurrence of difficulties and the price indicators of economic fluctuations. After all, it is possible that the composition of Joanna Mestdagh's patient group changed over time. For instance, it could be that she attracted a more middle and local upper class clientele when she had gained more experience. In this case, the higher fees later in her career might be attributable to the fact that she had more affluent clients rather than directly to her experience. To control for such effects, we use multiple linear regression to analyze the impact of these three categorical variables simultaneously. I limited the analysis to births within wedlock, for which I have most variables.[65]

Experience is measured in years, using a continuous variable. For social status, I include the categorical variable based on the occupational titles that were previously used. In the model, all types of complications have been combined into one dummy because of the small numbers per category. Wheat, rye and potato prices are three separate continuous variables. The outcome of the linear regression is listed in Table 4.

Most factors still have an impact after controlling for other variables. Experience definitely played a role in pricing: over the course of her career, Mestdagh's fees slowly but significantly increased. Similarly, the results regarding social status are in line with the findings from the cross-tabulations: fathers from all occupational groups paid more than the unskilled workers: farmers and members of the local elite paid two to three times as much as an unskilled worker. The results regarding migrant status remain hard to interpret: now the births of children from migrant fathers, either married with a local woman or not, turn out to be

65 I did, however, run an alternative model including the unwed mothers and excluding the migration variable. The results hardly affected the outcomes and the results for the unwed mothers themselves were insignificant. Therefore this model is not shown here.

more costly. Yet, we should interpret this with caution, as only the result of children from two migrants is significant at the 0.01-level. This could signify that social networks mattered but more elaborate analyses on this are needed to make firm statements. The outcome regarding complications is clear: difficult births were more expensive. Of the indicators of economic fluctuations, the food prices, only the potato price still produces a significant result. Surprisingly however, an increase in the potato price results in a lower midwife fee. From the bivariate analysis, we had found the opposite result. Yet, in the correlation we had analyzed the link with Mestdagh annual average prices and in the multivariate model, we are considering all births separately. This might be another indication that Mestdagh was adjusting her fees to the capabilities of her clients. In

Table 4 Multivariate analysis of delivery fees of Joanna Mestdagh within Dudzele, 1831-1892

	Legitimate births in Dudzele	
	Coefficient	**p-value**
Midwife's experience in years	0.038	0.000
Social status (ref. unskilled worker)		
Skilled worker/artisan/craftsman	0.732	0.000
Farmer	2.586	0.000
Local elite	2.864	0.000
Complication (ref. no)		
Yes	0.992	0.000
Wheat price	-0.003	0.912
Rye price	0.043	0.291
Potato price	-0.136	0.001
Migrant status (ref. both local)		
only father local	-0.012	0.907
only mother local	0.250	0.031
both migrants	0.320	0.010
Constant	3.187	0.000
	N=1348	
	Prob > F = 0.000	
	R2 = 0.420	

Source: Casebook Joanna Mestdagh.

Dudzele, Mestdagh's experience appears to be more critical than general economic circumstances. Yet looking for clients elsewhere may have been part of her strategy to safeguard her income in times of economic hardship, but this cannot be assessed with this model, which restricts its focus to Dudzele.

Conclusion

Nineteenth-century midwifery has mainly been studied using schoolbooks and medical reports. The regulations of midwifery, which varied across Europe, are thus relatively well known. Few authors have tried to grasp the tension between the principles and the practice of midwifery. Casebooks by midwives provide first-hand data on childbirth practices. In this article, I used the casebook of Joanna Mestdagh from Dudzele for the years 1831-1892 to analyze the factors that determined her pricing: the experience of the midwife, the work terrain, the social and migrant status of the client and the specific circumstances of the client's condition.

Some factors produced sharp outcomes. Prices clearly went up as the midwife's career progressed, even after controlling for several other factors. Fees were also higher when Mestdagh crossed the border of her own community to assist deliveries. The social status of the client was another important predictor: the poorest groups in the community paid the lowest fees. Finally, indicators of complicated births, such as twin births or stillbirths, were associated with higher fees. For a smaller set of variables, the results were not so clear. The link between Mestdagh's fees and the annual average food prices, as proxies of economic fluctuations, produced at first sight conflicting outcomes. Also, the importance of migrant status remains was unclear.

Even though much remains under the radar – such as the type and amount of care each family received – my analysis has provided one of the first, much-needed empirical bases for assumptions regarding the pricing of medical professionals, midwives in particular. Based on the findings, I see several opportunities for future research.

First, the distinctive prices for different social groups in the community deserve further scrutiny. They should be framed more elaborately in studies of variable access to medical care and linked to the study of household budgets. What part of the budget was spent on hygiene? Did people proactively save money before the child was coming? While it will be hard to find new detailed material to answer these questions, the

rates from midwives' registers can be linked to existing studies of working class household budgets. In addition, the role of poor relief institutions should be further examined. However, access to medical care was not only determined by economic factors but also by intertwined factors such as the medical occupancy rate and the level of medicalization within the population. These elements should also be taken into account.

Second, a more thorough continuation of the linkage process between the casebook's data and other nominal demographic, spatial, fiscal and socio-economic information from within *and* outside the community would enhance our understanding of how social networks function with regard to medical consumption and to what extent fellow midwives and other medical professionals were competitors or collaborators. Especially in a small municipality like Dudzele, questions can be raised about the motivations of the people to choose either Joanna Mestdagh or the other midwife in the village. Ultimately this could lead to a study of choice patterns in health care consumption.

Finally, given the fact that midwifery regulations and the training of midwives varied widely across Europe, pricing determinants may have varied accordingly. Consequently, more methodical studies on pricing determinants in different pre-modern and modern contexts across Europe are needed to find out whether the same factors played a similar role everywhere or whether additional factors should be analyzed. The personal life courses of midwives, for instance, probably also affected the courses of their careers: the impact of marriage, widowhood and the presence of children on income gathering and price setting remains unknown. Therefore, with this research, I attempt to encourage the search for additional surviving registers, as well as a reconsideration of the known casebooks with payment information.

About the author

Christa Matthys (1981) has a PhD in history (Ghent University, 2012). In her dissertation, she investigated the role of female domestic servants in the fertility decline in Flanders, 1830-1930. Subsequently, she worked as a postdoctoral researcher at the Max Planck Institute for Demographic Research in Rostock (Germany) and as a postdoctoral fellow of the Research Foundation – Flanders (FWO) at Ghent University. She publishes on fertility change, domestic service, maternal health, and social diffusion of demographic ideas and behaviour.
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