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## Spanish 'Flu in Scotland: A Lanarkshire Case Study<sup>1</sup>

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**Abstract.** The purpose of this article is to explore the impact that the 1918 Influenza Pandemic (otherwise known as the 'Spanish 'Flu') had on the Scottish county of Lanarkshire. Despite being one of the most devastating events in modern history, to date little is known about the experience of the disease in Scotland. Structured in two parts, part one of this article will examine the human impact of the Spanish 'Flu within Lanarkshire, while part two focuses on the official responses to the pandemic from both the medical profession and local civic government. In doing so, this article will demonstrate that the Spanish 'Flu generated a high level of mortality amongst the population of Lanarkshire, placed great strain on medical services, and exposed tensions between local and central government at a time of increasing state intervention.

On 13 July 1918, the article 'On some unusual forms of epidemic disease' appeared within the pages of *The Lancet* medical journal. Written by the Medical Officer of Health for Glasgow, Dr A. K. Chalmers and his associates, the article detailed the emergence of an unfamiliar malady during May 1918 in a Lanarkshire institutional home. Although considered an isolated occurrence, the symptoms documented were contemporaneous with cases reported amongst groups of workers in 'industrial establishments' in Glasgow. Though misdiagnosed initially as botulism, the doctors conceded that the disease was 'probably influenzal in character'.<sup>2</sup> Unbeknownst to Dr Chalmers and his colleagues at the time, they were in fact writing about

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<sup>2</sup> A.K. Chalmers, R. Picken, and R. Maclean, 'On some unusual forms of epidemic disease', *The Lancet*, 13 July 1918, p. 35.

some of Scotland's first victims of the deadly H1N1 influenza virus – otherwise known as the Spanish 'Flu.

Ordinarily for those living in 1918, the prospect of contracting a dose of influenza would not have been particularly alarming. Then, as now, the 'flu was considered a familiar and (usually) benign type of illness. Annual spates were expected during the winter months,<sup>3</sup> with only the very young or old expected to be vulnerable to more serious complications. The oncoming Spanish 'Flu pandemic, however, was significantly different.<sup>4</sup> As the First World War entered its final stages, the virus infected hundreds of millions around the world, resulting in a pandemic of unprecedented proportions that killed an estimated fifty to one hundred million people.<sup>5</sup> The pandemic was characterised by three separate waves that lasted for a few weeks or months at time and in most countries affected, the majority of deaths occurred during the second wave, typically from September to December 1918.<sup>6</sup>

In Scotland, the number of those who died from the Spanish 'Flu was officially recorded as 17,575, but this figure has since been considered a substantial underestimate,<sup>7</sup> and recent research has instead placed the true figure of those who died to be between 27,641 and 33,771.<sup>8</sup> In a report published shortly after the conclusion of the pandemic, it was admitted that the 'recorded number of influenza deaths is...probably an understatement', with deaths also 'having occurred from complications of influenza, without influenza being named' on death certificates.<sup>9</sup> Furthermore, the Registrar General for Scotland recorded that the 'mortality

<sup>3</sup> A. Crosby, *America's Forgotten Pandemic: The Influenza of 1918*, (Cambridge: Cambridge University Press, 2003), p. 5.

<sup>4</sup> A.R. Butler and J. L. Hogg, 'Exploring Scotland's Influenza Pandemic of 1918–19: Lest we Forget', *The Journal of the Royal College of Physicians of Edinburgh*, 37, 4, (2007), p. 362.

<sup>5</sup> H. Okland and S. Mamelund, 'Race and 1918 Influenza Pandemic in the United States: A Review of the literature', *International Journal of Environmental Research and Public Health*, 16, 14 (2019), p. 1.

<sup>6</sup> Butler and Hogg, 'Exploring Scotland's Influenza Pandemic of 1918–19', p. 362.

<sup>7</sup> *Ibid.*, p. 363.

<sup>8</sup> N. Johnson, 'Scottish 'Flu: The Scottish Experience of 'Spanish Flu'', *The Scottish Historical Review*, 83, 216, (2004), p. 226.

<sup>9</sup> *Report on the Mortality from Influenza in Scotland during the Epidemic of 1918–19: A Supplement to the Annual Reports of the Registrar General for Scotland* (Edinburgh, 1919), p. 5.

resulting from this epidemic in Scotland was much greater than in any previous influenza epidemic’, and that ‘the mortality from the recent epidemic greatly exceeds in amount those of epidemics of other infectious diseases’.<sup>10</sup> The impact of the Spanish ‘Flu is even greater when one considers that an estimated nine out of ten of those afflicted survived, meaning that hundreds of thousands of Scots are thought to have been directly affected by the disease.<sup>11</sup>

Although the pandemic could be classified as one of the deadliest events in Scotland’s modern history, it has, until recently, been overlooked by historians, and when compared to the large-scale memorialisation and commemoration of the First World War, the relative historiographical silence surrounding the Spanish ‘Flu is stark.<sup>12</sup> At present, only a handful of studies dedicated to the disease in Scotland exist. In Niall Johnson’s 2004 article ‘Scottish ‘Flu: The Scottish Experience of ‘Spanish Flu’, the author restricts himself to commenting on the pandemic’s mortality, but goes on to state that the economic and social histories of Scotland’s experience of the pandemic have yet to be written.<sup>13</sup> Butler and Hogg’s 2007 article ‘Exploring Scotland’s Influenza Pandemic of 1918–19: Lest we Forget’, was written in an attempt to ignite the interest of Scottish historians and provoke research into the impact of the Spanish ‘Flu pandemic in Scotland.<sup>14</sup> More recently, Graham Connelly and Michael Lawrence’s preliminary study ‘Before Covid-19: The Effect of the 1918 Pandemic on Scotland’s Children’ focuses on the effect the pandemic had on children in residential homes and schools in Scotland.<sup>15</sup> Beyond this, the Scottish experience of the Spanish ‘Flu has tended to be subsumed within works that focus on the overall ‘British’ experience of the pandemic. While this is understandable to an

<sup>10</sup> Johnson, ‘Scottish ‘Flu’, p. 221.

<sup>11</sup> Butler and Hogg, ‘Exploring Scotland’s Influenza Pandemic of 1918–19’, p. 363.

<sup>12</sup> Ibid., p. 362.

<sup>13</sup> Johnson, ‘Scottish ‘Flu’, p. 217.

<sup>14</sup> Butler and Hogg, ‘Exploring Scotland’s Influenza Pandemic of 1918–19’ p. 364.

<sup>15</sup> G. Connolly and M. Lawrence, ‘Before Covid-19: The Effect of the 1918 Pandemic on Scotland’s Children’, *Scottish Journal of Residential Care*, Special Feature, (2020) pp. 1 – 16.

extent, due to the separation of Scottish vital statistics, it has led to a marginalisation of Scottish perspectives in favour of those from England and Wales.<sup>16</sup>

This marginalisation is important, as in the absence of any co-ordinated national responses in both political and medical terms, the impact of the Spanish 'Flu pandemic is most keenly appreciated at a regional and local level. It is therefore only by conducting such studies that the difficulties and reactions prompted by the pandemic can be fully evaluated.<sup>17</sup> By using Lanarkshire as a case-study, the aim of this article is to ascertain the impact this very global disease had on one Scottish county. Structured in two parts, part one will focus on the impact of the Spanish 'Flu within Lanarkshire, with particular focus placed on the human cost of the pandemic. Part two will then focus on official responses to the pandemic, from both the medical profession and from local civic government. By offering new perspectives on the Scottish experience of the pandemic, this article will partially redress the current imbalance in the present historiography and provide a fuller understanding of the transnational connections and character of the Spanish 'Flu, while also establishing the common social impacts of the disease.<sup>18</sup> Additionally, by eschewing a purely medical history in favour of a social one, this article will offer an insight into Scottish society at a crucial juncture of war and reconstruction.

## Impact

Although christened with the misnomer, the 'Spanish 'Flu', the disease was only referred to as such due to the ability of the press in neutral Spain to report freely on the pandemic (and on

<sup>16</sup> Johnson, 'Scottish 'Flu', p. 217.

<sup>17</sup> S. Tomkins, 'The Failure of Expertise: Public Health Policy in Britain during the 1918–19 Influenza Epidemic', *Social History of Medicine: The Journal of the Society for the Social History of Medicine*, 5, 3, (1992), p. 445; J. E. Knight, *The Social Impact of the Influenza Pandemic of 1918–19: with Special Reference to the East Midlands* (University of Nottingham, PhD Thesis, 2015); E. W. Jones, *Influenza 1918: Disease, Death, and Struggle in Winnipeg* (Toronto: University of Toronto Press, 2007); I. Milne, *The 1918–19 Spanish Flu Epidemic in Leinster* (Trinity College Dublin, PhD Thesis 2011).

<sup>18</sup> H. Phillips, 'The Recent Wave of 'Spanish' Flu Historiography', *Social History of Medicine*, 27, 4, (2014), p. 807.

the illness of King Alonso XIII, in particular).<sup>19</sup> While it is possible to disregard Spain as the source of the disease, however, the origin of the virus responsible for the pandemic is much harder to pinpoint.<sup>20</sup> The most established theory, perhaps, is that the virus originated in military camps in the United States in early 1918 (with one of the first outbreaks documented at Fort Riley, Kansas, in March 1918) and transported by American troops to the Western Front from where it quickly spread outwards.<sup>21</sup> However, researchers have also proposed that the virus emerged in military bases in France and England between 1916–17 or in China during the winter of 1917–18.<sup>22</sup>

Regardless of its origins, it is believed that the virus was introduced to Britain by servicemen during the first half of 1918 as soldiers passed through the country's ports. The exact pattern of introduction and diffusion in Britain, however, is difficult to determine. In England and Wales, the Registrar General officially dated the start of the pandemic to the week ending 29 June 1918, though it is certain that cases were present prior to this date. Niall Johnson has suggested that the beginning of the pandemic in England and Wales could be dated instead to 19 May 1918, a week where 511 influenza deaths were recorded in comparison to the previous week's total of seventy-nine.<sup>23</sup> In Scotland, the 'arbitrary date marking the commencement of the epidemic' was given by the Registrar General as 1 July 1918, though outbreaks had been apparent well in advance of this date. In his report, the Registrar General for Scotland remarked that earliest indication of 'an epidemic of influenza in 1918 was in the mortality statistics of Glasgow in the month of May', though this outbreak was considered 'limited' and 'insufficient' with regards to national mortality statistics.<sup>24</sup> Other documented

<sup>19</sup> G. Beiner, P. Marsh, and I. Milne, 'Greatest Killer of the Twentieth Century: The Great Flu of 1918–19', *History Ireland*, 17, 2, (2009) p. 40.

<sup>20</sup> N. Johnson, *Britain and the 1918–19 Influenza Pandemic: A Dark Epilogue* (London: Routledge, 2006), p. 38.

<sup>21</sup> *Ibid.*, p. 39.

<sup>22</sup> M.O. Humphries, 'Paths of Infection: The First World War and the Origins of the 1918 Influenza Pandemic', *War in History*, 21, (2013), p. 59.

<sup>23</sup> Johnson, *Britain and the 1918–19 Influenza Pandemic*, pp. 53–4.

<sup>24</sup> *Report on the Mortality from Influenza in Scotland during the Epidemic of 1918–19*, p. 1.

outbreaks of epidemic influenza in Lanarkshire, however, indicate that the Spanish 'Flu was more widespread in Scotland by early May 1918 than previously thought.

Before examining the spread of the disease within Lanarkshire, it is necessary to establish some key facts about the county as it was at the outbreak of the pandemic. In 1918, local government in Scotland was fragmented, consisting of a patchwork arrangement of over thirty-three county councils, 200 burgh councils, and 869 parish councils, with additional school boards, committees, and commissions all jockeying for power and influence.<sup>25</sup> Lanarkshire, while coming under the remit of Lanarkshire County Council, also contained many burgh councils within its boundaries. Generally, the administrative remit of burgh councils was less extensive when compared to modern expectations of local government, and the duties of its staff (usually encompassing a burgh surveyor, sanitary inspector, tax collector, and a medical officer of health) were often carried out somewhat leisurely.<sup>26</sup> This arrangement was further divided by the separation of Lanarkshire County Council into three wards, each having the authority to appoint committees concerning, amongst others, matters of public health and sanitation. In 1918, the Upper Ward of Lanarkshire covered an area of 326,803 acres, containing the rural towns and villages in the south-east of the county, and had population of 44,350. In contrast, the Middle Ward had jurisdiction over the industrial heartland of Lanarkshire (including the towns of Hamilton, Motherwell, Airdrie, Coatbridge, Bellshill, and Wishaw), in which a population of 212,000 people were concentrated into 186,414 acres of land. Finally, the Lower Ward, on the boundary with neighbouring Glasgow, covered an area of 24,643 acres, with a population of 30,300.<sup>27</sup>

<sup>25</sup> C. Macdonald *Whaur Extremes Meet* (Edinburgh: John Donald, 2009), p. 193.

<sup>26</sup> R. Duncan, *Wishaw: Life and Labour in a Lanarkshire Industrial Community, 1790–1914*, (Motherwell: Motherwell District Council Department of Leisure Services, 1986), p. 97.

<sup>27</sup> Glasgow, Mitchell Library, NHS Greater Glasgow Archives (hereafter NHSAG), Lanarkshire Health Board (hereafter LHB), LK13/1/24, *Summary Report of the County and District Medical Officer 1914–19*, 1919, pp. 9–10.

Direction from central government, when given, came in the shape of the public health body the Local Government Board for Scotland (LGBS). However, its advisory rather than executive function meant that it could be easily disregarded by local government administrations.<sup>28</sup> The *Report of the Royal Commission on the Housing of the Industrial Population of Scotland, Rural and Urban*, published in 1917, outlined the ineffectiveness of the LGBS, stating that the board had ‘no direct power of compelling a Local Authority to perform a neglected duty’, and instead had to apply to the Court of Session to take action against a failing local authority.<sup>29</sup> In the absence of a Ministry of Health or National Health Service, public health remained solely within the hands of fragmented (and often competing) local authorities and their Medical Officers of Health (MOH).<sup>30</sup>

From the records available, it is possible to determine that the virus was prevalent within Lanarkshire by the beginning of May 1918, marking the beginning of the first wave of the pandemic. The first recorded outbreak of Spanish ‘Flu in the county was traced to Belvidere Public School in Bellshill on Friday, 3 May 1918, where a teacher was reported to have fallen ill with symptoms of a loss of appetite, headache, nausea, and vomiting. Over the weekend numerous pupils in her class became similarly unwell, and the disease spread rapidly throughout the school the following Monday when classes reconvened. By the 10 May 1918, cases at the school had become so numerous that the headmaster wrote to the County Medical Officer, Dr John Wilson, to state that he ‘had a considerable number of cases this week of pupils becoming sick and having to be sent home...’. After having had to ‘send away four pupils from one class alone’, the headmaster noted that the total absentees amounted to forty-one out of sixty-four pupils.<sup>31</sup> Dr Wilson also noted that a nearby hosiery factory had suffered

<sup>28</sup> Johnson, *Britain and the 1918–19 Influenza Pandemic*, p. 2.

<sup>29</sup> *Report of the Royal Commission on the Housing of the Industrial Population of Scotland, Rural and Urban* (Edinburgh, 1917), p. 10.

<sup>30</sup> Johnson, *Britain and the 1918–19 Influenza Pandemic*, p. 2.

<sup>31</sup> NHS, LHB, LK13/1/24, *Summary Report of the County and District Medical Officer 1914–19*, p. 101.

a similar outbreak, with ‘the symptoms occurring among the adolescent and adult employees being practically the same as those manifesting themselves among the scholars’, before spreading to the general public.<sup>32</sup>

Around the same time the disease had appeared in Bellshill, reports emerged that up to ninety boys were affected in Smyllum Orphanage, a large Roman Catholic residential institution in Lanark. On 18 May 1918 the first death attributed to the influenza outbreak was registered, though the prevalence of gastro-intestinal symptoms led, initially, to the death being recorded as acute enteritis. Overall, eight deaths were registered in May as a result of the disease and the matter was considered serious enough to be reported to the Upper Ward district authorities.<sup>33</sup> They, in turn, certified the closure of the Boys’ and Infants’ department of the Smyllum Orphanage School from 20 May to 17 June, and a full report was submitted to the Upper Ward Public Health Committee on 15 July 1918 by Dr Wilson. He asserted that the sickness, which by this stage had been diagnosed as influenza, had affected 186 children in total but had almost abated within the institution by the beginning of July.<sup>34</sup>

Soon after these initial outbreaks, the disease spread rapidly throughout the greater Lanarkshire area.<sup>35</sup> By the beginning of July, the *Motherwell Times* reported that ‘hundreds of people [were] down with the malady’ within the town, with one doctor finding ‘no fewer than fifteen cases in three houses’.<sup>36</sup> Dr Wilson noted that all cases, ‘while varying considerably in intensity, presented a marked similarity in type’. In each instance the onset of the disease was sudden, lasting on average for a duration of about three days, and was characterised by a marked pallor, headache, fatigue, and gastro-intestinal distress.<sup>37</sup> Overall, the symptoms that

<sup>32</sup> Ibid., p. 102.

<sup>33</sup> Ibid., p. 74.

<sup>34</sup> Glasgow, Mitchell Library, Glasgow City Archives (hereafter GCA), Lanark County Council (hereafter LCC), CO1/6/1/10, *Upper Ward District Committee Minutes*, 1918–19, p. 30.

<sup>35</sup> NHSA, LHB, LK13/1/24, *Summary Report of the County and District Medical Officer 1914–19*, p. 102.

<sup>36</sup> *Motherwell Times*, 5 July 1918, p. 5.

<sup>37</sup> NHSA, LHB, LK13/1/24, *Summary Report of the County and District Medical Officer 1914–19*, p. 101.

were presented during the first wave were considered to be very typical of a usual influenza outbreak,<sup>38</sup> though by the middle of July the serious nature of the outbreak began to be recognised.

On 19 July, nine deaths were reported in Motherwell as a direct result of the disease. Unusually, it was ‘big, strong, able-bodied men’ who made up the majority of deaths, and all nine deaths occurred to those between the ages of twenty and fifty. The deaths of young, fit, healthy people were a marked departure from the normal patterns of influenza mortality, and this was exemplified further by the passing of a local sportsman, David Murray, a popular right-back for Motherwell Football Club. Reports were made of the illness striking so suddenly in some of the large works that members of staff had to be removed from their desks and sent home in cabs, while the disease became so general amongst works staff elsewhere that production had begun to be adversely affected.<sup>39</sup> Accounts also filtered through of townspeople who had fallen ill while on holiday, and instead of experiencing a beneficial vacation, found themselves convalescing at coastal resorts.<sup>40</sup>

After a brief abatement during the month of August, by 28 September the *Carlisle and Lanark Gazette* reported a recrudescence of epidemic influenza within the town of Lanark.<sup>41</sup> The *Motherwell Times* also confirmed the reappearance of the disease in the Middle Ward region by 4 October, with many people ‘being down with the malady’ in Motherwell, Wishaw, Bellshill, and Holytown.<sup>42</sup> This second wave of influenza, present within Lanarkshire between September and November 1918 soon proved to be a deadlier manifestation of the disease, and left victims susceptible to severe complications.<sup>43</sup>

<sup>38</sup> Johnson, *Britain and the 1918–19 Influenza Pandemic*, p. 64.

<sup>39</sup> *Motherwell Times*, 5 July 1918, p. 5

<sup>40</sup> *Motherwell Times*, 19 July 1918, p. 5.

<sup>41</sup> *Carlisle and Lanark Gazette*, 28 September 1918, p. 2.

<sup>42</sup> *Motherwell Times*, 4 October 1918, p. 5.

<sup>43</sup> Knight, *The Social Impact of the Influenza Pandemic of 1918–19*, p. 56.

In his *Summary Report of the County and District Medical Officer*, Dr Wilson explained that in the autumn months ‘the disease assumed a much more serious character’ and became ‘associated in very many cases with grave complications of respiratory, nervous and toxic type, among which the death-rate was alarmingly high’.<sup>44</sup> Table 1 illustrates the monthly distribution of influenza deaths in the Middle Ward of Lanarkshire, and details the drastic increase in both the number of deaths between September and October 1918 and the number of cases that developed respiratory complications.<sup>45</sup>

**Table 1.** Monthly distribution of influenza deaths in Middle Ward, 1918.

	July	Aug	Sept	Oct	Nov	Dec	Total
Deaths (overall)	45	24	40	225	109	27	470
Gastro-Intestinal	1	0	0	1	3	0	5
Nervous & Toxic	4	2	5	8	5	1	25
Uncomplicated	6	6	8	24	11	2	57
Respiratory	34	16	27	192	90	24	383
Percentage of fatal respiratory case	75.5%	66.6%	67.5%	85.3%	82.5%	88.8%	81.4%

Source: NHSA, LHB, LK13/1/24, *Summary Report of the County and District Medical Officer 1914–19*, p. 103.

How and why the virus itself changed between the first and second waves to produce such a startling increase remains unclear.<sup>46</sup> Similar to the symptoms described by those suffering in the first wave of the pandemic, those stricken in the second wave complained of severe

<sup>44</sup> NHSA, LHB, LK13/1/24, *Summary Report of the County and District Medical Officer 1914–19*, p. 102.

<sup>45</sup> *Ibid.*, p. 103.

<sup>46</sup> Knight, *The Social Impact of the Influenza Pandemic of 1918–19*, p. 56.

headaches, nausea, fatigue, and dizziness. However, when respiratory complications developed, such as bronchitis and pneumonia,<sup>47</sup> many victims' immune systems reacted to the mutated virus by producing an exaggerated inflammatory response that triggered vasodilation, necrosis, and caused the lungs to fill with fluid. Not only did this immune response essentially drown the victim,<sup>48</sup> it also led to one of the most visually distressing aspects distinctive of those who suffered from respiratory complications during the epidemic, heliotrope cyanosis. As the victim's lungs struggled to produce oxygen, their complexion became purple or blue, which in the vast majority of cases signalled death.<sup>49</sup>

One example is sufficient to illustrate the sheer number of deaths that took place during the second wave of the pandemic. In Motherwell, the increase in mortality meant that the staff of a local cemetery were overburdened with work. Over a period of three days, due to 'the abnormal number of burials', staff were unable to open a sufficient number of graves, and it was impossible for the cemetery clerk to offer assurances that graves would be prepared in time for existing burial arrangements.<sup>50</sup> In many cases, deaths had taken place within the family home, and any delay to the burial of corpses posed a serious health risk to the living. As available resources and manpower were outstripped by deaths, many families were faced with a harrowing task.<sup>51</sup> 'There being nothing else for it', relatives 'dug the graves of their own dead'. Cemetery staff approved this action only under these exceptional circumstances and gave mourners the necessary guidance and tools to carry out the work, with 'pathetic scenes' witnessed 'as the bereaved fathers and brothers set about their mournful task'.<sup>52</sup>

After another short abatement in the course of the disease throughout December 1918, the following January saw cases of the Spanish 'Flu within Lanarkshire gradually begin to rise,

<sup>47</sup> Jones, *Influenza 1918: Disease, Death, and Struggle in Winnipeg*, p. 14.

<sup>48</sup> Butler and Hogg, 'Exploring Scotland's Influenza Pandemic of 1918–19', p. 363.

<sup>49</sup> Knight, *The Social Impact of the Influenza Pandemic of 1918–19*, p. 68.

<sup>50</sup> *Motherwell Times*, 1 November 1918, p. 5.

<sup>51</sup> Knight, *The Social Impact of the Influenza Pandemic of 1918–19*, p. 183.

<sup>52</sup> *Motherwell Times*, 1 November 1918, p. 5.

before accelerating sharply in February and March.<sup>53</sup> Table 2 details the mortality figures resulting from the pandemic in the Middle Ward of Lanarkshire during the third wave. As is apparent, the number of deaths reported during this outbreak did not ‘assume the alarming proportions of the epidemic of October 1918’, though it was, as the MOH for Lanarkshire documented, still an outbreak of ‘considerable severity’.<sup>54</sup> That areas within Lanarkshire suffered higher death rates during the second wave of the epidemic is a pattern not ubiquitous within Scotland, and both Glasgow and Edinburgh recorded their highest mortality during the third wave, though the reasons behind this differential are not entirely clear.<sup>55</sup>

**Table 2.** Monthly distribution of deaths in Middle Ward, 1919.

	January	February	March	April	Total
Deaths (overall)	31	94	110	15	250
Gastro-intestinal	0	0	1	0	1
Nervous & Toxic	2	5	4	2	13
Uncomplicated	3	18	24	4	49
Respiratory	26	71	81	9	187
Percentage of fatal respiratory cases	83.8%	75.5%	73.6	60.0%	74.8%

Source: NHSA, LHB, LK13/1/24, *Summary Report of the County and District Medical Officer 1914–19*, p. 103.

The third phase of the Spanish ‘Flu eventually came to an end during April 1919, when the ‘outbreak terminated almost abruptly’. After this time, no reappearance of the disease was

<sup>53</sup> NHSA, LHB, LK13/1/24, *Summary Report of the County and District Medical Officer 1914–19*, p. 104.

<sup>54</sup> *Ibid.*, p. 217.

<sup>55</sup> Johnson, ‘Scottish ‘Flu’, p. 219.

reported, bringing the overall epidemic within Lanarkshire to an end.<sup>56</sup> From the information provided by Dr Wilson in Tables 1 and 2, it is possible to estimate that in the Middle Ward of Lanarkshire, sixty-nine people died during the first wave, followed by 401 deaths in the second wave, and 250 deaths in the third. It is altogether more difficult, however, to calculate the exact number of influenza deaths across each of the three waves in Lanarkshire as a whole. In his report, Dr Wilson outlined that there was some discrepancy within the three wards in the manner that deaths were recorded. He explained that the Registrar General for Scotland ‘took the view that only deaths in which influenza was given as the sole cause should be classified under the heading influenza’, but where ‘deaths from influenza occurred in conjunction with some other well-defined causes of death, classification preference is given to the latter’. While this method of classification was adhered to in the Lower Ward, Dr Wilson stated that in the Upper and Middle Ward districts, ‘deaths in which influenza was a contributory cause were classified as influenza’.<sup>57</sup>

**Table 3.** Influenza Mortality Statistics in Lanarkshire, July 1918 – April 1919.

Lanarkshire District	Total Deaths from Influenza	Rate per 1000 of Population
Lower Ward	112	4.2
Middle Ward	726	4.2
Upper Ward	196	5.5

Source: *Report on the Mortality from Influenza in Scotland during the Epidemic of 1918–19: A Supplement to the Annual Reports of the Registrar General for Scotland* (Edinburgh, 1919), p. 25.

<sup>56</sup> NHS A, LHB, LK13/1/24, *Summary Report of the County and District Medical Officer 1914–19*, p. 104.

<sup>57</sup> *Ibid.*, p. 12.

The official mortality figures provided by the Registrar General for Scotland, visible in Table 3, indicate that 1,034 people in Lanarkshire died as a result of the Spanish 'Flu between 1918 and 1919. Given the understated national mortality statistics compiled by the Registrar General for Scotland, however, it seems probable that this figure is an underestimate. Based on the figures provided, the majority of deaths took place in the heavily populated Middle Ward district, though the Registrar General for Scotland calculated that both the Middle Ward and Lower Ward districts had a death rate of 4.2 per thousand of the population.<sup>58</sup> While this rate is broadly commensurate with the official influenza death rate given for Scotland as a whole (4.3 per thousand),<sup>59</sup> it is significantly lower than that of the Upper Ward. At 5.5 per thousand,<sup>60</sup> the death rate of the Upper Ward district was also higher than the rate reported for England and Wales, recorded as 4.774 per thousand.<sup>61</sup>

Aside from its lethality, one of the most unusual aspects of the Spanish 'Flu pandemic throughout each of the three waves was the vulnerability of healthy young adults (instead of the very young or very old as would be commonly expected) to fall victim to the disease. When viewed in relation to the national age distribution of deaths from the 1900 influenza epidemic (previously Scotland's most potent outbreak),<sup>62</sup> this anomalous feature of the Spanish 'Flu pandemic is well illustrated. Throughout the 1918–19 influenza epidemic, young adults, specifically those aged between fifteen and thirty-four, accounted for 38.77 per cent of deaths while in comparison only 7.38 per cent of deaths are attributed to the same age category during the 1900 epidemic. While this contrast is stark, it was even greater within the sixty-five and over age category. During the 1918–19 epidemic, 10.71 per cent of influenza victims were

<sup>58</sup> *Report on the Mortality from Influenza in Scotland during the Epidemic of 1918–19*, p. 25.

<sup>59</sup> Johnson, *Britain and the 1918–19 Influenza Pandemic*, p. 69.

<sup>60</sup> *Report on the Mortality from Influenza in Scotland during the Epidemic of 1918–19*, p. 25.

<sup>61</sup> Johnson, *Britain and the 1918–19 Influenza Pandemic*, p. 69.

<sup>62</sup> *Report on the Mortality from Influenza in Scotland during the Epidemic of 1918–19*, p. 12.

aged sixty-five or over, a huge decrease from the previous 1900 epidemic where those aged sixty-five or over accounted for 53.19 per cent of total deaths.<sup>63</sup>

Following this national trend, Dr Wilson stated that within Lanarkshire, those ‘between twenty and forty, and more especially between the ages of twenty-five and thirty-five, were those who were most likely to succumb to the disease’. He went on to say that this was especially true if respiratory complications emerged during the course of the illness, and that in cases where influenza was paired with bronchitis or pneumonia, ‘the prognostic significance of age seemed very largely to lose its value’.<sup>64</sup> The reason behind this was relatively simple. Generally, the immune systems of those between twenty and forty highlighted by Dr Wilson were much stronger than those with diminished health, children, and the elderly. While this would normally afford this particular category a greater degree of protection against disease, the ability to produce a more powerful response to fight off infection, in this instance, proved counterproductive.<sup>65</sup> Given the tendency of the body to produce an overzealous response to the influenza virus, it was much less likely for an individual’s internal defences to over-react if they possessed a weak or underdeveloped immune system. For those whose immune system typically operated at peak capacity, such as young adults, it was a vigorous immune response that often proved fatal.<sup>66</sup>

In contrast to age, there appears, at first glance, to be little significant variation in mortality between genders.<sup>67</sup> As summarised by Table 4, out of 485 influenza deaths registered in the Middle Ward district throughout 1918, 48.9 per cent (237) were male and 51.1 per cent (248) were female. This is consistent with the pattern across Scotland, where 52.2 per cent of documented influenza deaths were of women, a slight difference that was dismissed by the

<sup>63</sup> Ibid., p. 9.

<sup>64</sup> NHSA, LHB, LK13/1/24, *Summary Report of the County and District Medical Officer 1914–19*, p. 104.

<sup>65</sup> Jones, *Influenza 1918: Disease, Death, and Struggle in Winnipeg*, p. 97.

<sup>66</sup> Butler and Hogg, ‘Exploring Scotland’s Influenza Pandemic of 1918–19’, p. 363.

<sup>67</sup> Johnson, *Britain and the 1918–19 Influenza Pandemic*, p. 91.

Registrar General for Scotland as being inconsequential.<sup>68</sup> Despite this assertion, however, it is clear from Table 4 that differentials between genders in mortality in Lanarkshire did exist. Between the ages of twenty-five and sixty-five, more men died than women in every age bracket, while women were more likely to die than men in infancy and early adulthood.

**Table 4.** Age and sex distribution of influenza deaths in Middle Ward, 1918.

Ages	0–5	5–10	10–15	15–25	25–35	35–45	45–55	55–65	65–75	75+	Total
Male	33	16	11	32	61	31	25	12	14	2	237
Female	47	11	22	44	57	23	17	11	5	11	248
Total	80	27	33	76	118	54	42	23	19	13	485

Source: NHSA, LHB, LK13/1/24, *Summary Report of the County and District Medical Officer 1914–1919*, p.

104.

Although it is possible to view at a glance the differences between age and gender in influenza mortality in Lanarkshire during the pandemic, it is altogether harder to assess whether social status had any real effect. Indeed, the relationship between socioeconomic factors and the Spanish 'Flu have long been debated, with many studies concluding that the disease was 'socially neutral'.<sup>69</sup> Tomkins has asserted that while many local studies have tried to seek correlations between social status and influenza mortality, the epidemic was actually 'remarkably democratic' in its selection of victims.<sup>70</sup>

<sup>68</sup> Ibid., p. 92.

<sup>69</sup> S. Mamelund, 'A Socially Neutral Disease? Individual Social Class, Household Wealth and Mortality from Spanish influenza in two Socially Contrasting Parishes in Kristiania 1918–19', *Social Science & Medicine*, 62, 4, (2006), p. 924.

<sup>70</sup> Tomkins, 'The Failure of Expertise', p. 446.

Exponents of this view argue that the influenza of the 1918–19 pandemic struck at random due to the potency of the virus to which few, if any, had immunity, and have pointed to the instances of high-profile illness (including that of Prime Minister David Lloyd George) that occurred worldwide to substantiate their argument. However, it is possible that the ‘remarkably democratic’ nature of the Spanish ‘Flu has been overstated. Indeed, in their 2019 article ‘Race and 1918 Influenza Pandemic in the United States: A Review of the Literature’, Helene Økland and Svenn-Erik Mamelund demonstrated that the relationship between the virus and socio-economic factors was altogether more complicated. The authors found that, despite the potential disparities associated with race such as housing conditions, overcrowding, and access to sanitation facilities, black people had consistently lower influenza morbidity and mortality rates than white people in 1918. While the authors acknowledged that this result, when considered in relation to socio-economic factors, seemed counterintuitive,<sup>71</sup> they also highlighted that black people were more likely to develop secondary bacterial infections and have higher influenza case fatality rates than white people during the pandemic.<sup>72</sup>

It seems that while the virulence and novelty of the influenza virus may have ensured that there was only a moderate association between socio-economic factors and contracting the disease, there was a stronger connection between socio-economic status and mortality.<sup>73</sup> One socio-economic factor that may have had an effect on influenza morbidity and mortality rates in Lanarkshire during the pandemic was housing. The building of new houses had seriously declined from the beginning of the twentieth century, especially in the densely populated Middle Ward. In 1902 over 1,550 houses had been erected, but by 1912 this had reduced to 190. This was in addition to a significant number of older houses becoming uninhabitable as

<sup>71</sup> H. Økland and S. Mamelund, ‘Race and 1918 Influenza Pandemic in the United States: A Review of the Literature’, *International Journal of Environmental Research and Public Health*, 16 (2019), pp. 10–11.

<sup>72</sup> *Ibid.*, p. 15.

<sup>73</sup> Mamelund, ‘A Socially Neutral Disease?’, p. 924.

the years progressed,<sup>74</sup> and with the outbreak of the First World War the housing situation only deteriorated further. In March 1915, a circular issued by the LGBS stated that it was ‘essential that capital as well as labour should be made available in the directions in which it could best further the national interests’ for the duration of the war, and that the inception of all new works, except those of ‘pressing necessity’ for reasons of war requirements or public health, should be avoided. This was followed in August 1918 by another circular, which impressed upon the local authorities ‘the urgent need for strict economy in every branch of expenditure, whether capital or revenue’, and whilst they were not to relax public health standards excessively, they should as far as possible ‘refrain from requiring the execution of work, the cost of which had to be borne by private individuals, unless the work was urgently necessary’.<sup>75</sup>

As the war wore on, the housing situation became increasingly dire. Lanarkshire local authorities, while aware that a ‘considerable number of houses in occupancy’ were unfit for human habitation, stated that it was not possible ‘to take any steps towards dealing with such houses in view of the war’.<sup>76</sup> A report by the County Medical Officer of Health and District Clerk compiled in August 1917 further illustrated the scarcity of adequate housing in both urban and rural districts. In Strathaven, inquiries by county officials revealed that in twenty instances houses were occupied by members of more than one family. Bellshill, the focus of the outbreak in the Middle Ward, had a ‘decided scarcity of proper housing accommodation’, with 122 occurrences of more than one family found living within a dwelling.<sup>77</sup>

By 1918, the lack of suitable housing had become so widespread that the Housing Committee of the Middle Ward reported a need for over 2,538 houses to be built in total

<sup>74</sup> GCA, LCC, CO1/6/9/2, ‘Housing in the Middle Ward District’, *Middle Ward District: Reports by Officials, Papers Laid Before Council*, 1917–19, p. 3.

<sup>75</sup> NHSA, LHB, LK13/1/24, *Summary Report of the County and District Medical Officer 1914–19*, p. 27.

<sup>76</sup> GCA, LCC, CO1/6/9/2, ‘Housing in the Middle Ward District’, p. 9.

<sup>77</sup> GCA, LCC, CO1/6/9/2, ‘Housing: Report by Medical Officer of Health and District Clerk’, *Middle Ward District: Reports by Officials, Papers Laid Before Council*, 1917, p. 12.

throughout the district.<sup>78</sup> In the year previous, the authors of the *Report of the Royal Commission on the Housing of the Industrial Population of Scotland, Rural and Urban* documented at length the need for new housing and the overcrowding prevalent within Lanarkshire. The published report stated that the ‘overcrowding in the houses, with the attendant vitiated and impure atmosphere’, not only deteriorated ‘the physique and resisting power of the occupants’ but also ensured that ‘the opportunity for spread of infection [was] greatly increased’.<sup>79</sup> In the opinion of local county officials, too, the overcrowding and insanitary conditions that resulted from the lack of housing within the Lanarkshire had become ‘a serious menace to the Public Health’. Such deficiencies in sanitation, lack of ventilation, and dampness often combined to provide the perfect environmental conditions necessary for the transmission of intestinal or respiratory diseases,<sup>80</sup> and in a rather prescient memorandum on the housing conditions in the towns of Larkhall and Cambuslang, public health officials noted that unless a significant number of new dwellings were provided in such districts, they, as the public health authority, could not be held responsible for what may arise.<sup>81</sup>

It is therefore feasible that the squalid, poorly ventilated, and overcrowded premises prevalent in Lanarkshire during this period eased transmission of the Spanish ‘Flu, though the lack of morbidity figures and imprecise mortality statistics ensure that this cannot be investigated with any great degree of precision.<sup>82</sup> It is interesting to note, however, that mortality rates from pulmonary tuberculosis, a disease closely associated with living conditions and overcrowding,<sup>83</sup> also rose during the same period. In all wards of Lanarkshire, deaths from

<sup>78</sup> GCA, LCC, CO1/6/2/29, *Middle Ward District Committee Minutes*, 1918, pp. 889–90.

<sup>79</sup> *Report of the Royal Commission on the Housing of the Industrial Population of Scotland, Rural and Urban*, p. 111.

<sup>80</sup> R. Rodgers, *Scottish Housing in the Twentieth Century* (Leicester: Leicester University Press, 1989) p. 30.

<sup>81</sup> GCA, LCC, CO1/6/9/2, ‘Memorandum as to Housing Conditions in Larkhall and Cambuslang’, *Middle Ward District: Reports by Officials, Papers Laid Before Council*, 1917–19, pp. 3–4.

<sup>82</sup> NHS, LHB, LK13/1/24, *Summary Report of the County and District Medical Officer 1914–19*, p. 105.

<sup>83</sup> N. McFarlane, ‘Hospitals, Housing, and Tuberculosis in Glasgow, 1911–51’, *Social History of Medicine: The Journal of the Society for the Social History of Medicine*, 2, (1989), p. 76.

pulmonary tuberculosis rose from 179 in 1914 to 223 in 1918,<sup>84</sup> reflective, perhaps, of the deteriorating housing situation in Lanarkshire.

In a bid to try and combat the malady, members of the public turned their attention to local chemists and businesses who promised an affordable and effective solution to the influenza problem. A wide range of ‘medicines’ were advertised in the local press which boasted the ability to prevent or even cure influenza.<sup>85</sup> ‘Special Influenza tablets’ were available exclusively from one Airdrie Chemist, who claimed that their ‘beneficial effects [had] been proved in combatting this grave malady’.<sup>86</sup> Testimonials for ‘Veno’s Lightning Cough Cure’ similarly proclaimed an effectiveness in fighting the influenza scourge with each bottle costing less than a shilling.<sup>87</sup> And for as little as ten and a half pence, Quinn’s chemist in Lanark sold disinfectant that was a ‘guaranteed sure and proved preventative against Influenza’.<sup>88</sup>

The affordability of such remedies would suggest that they were intended for those who could not afford to seek professional medical assistance in the event of ill health, and if this was the case, the sheer prevalence of ‘cures’ available suggests that the market targeted was a substantial one. However, it is also possible that they were indicative of the failure of conventional medicine, medical authorities, and local government to effectively combat the pandemic. Indeed, Tomkins has stated that the action (or in some cases, inaction) of public health authorities in Britain during the pandemic constituted a ‘failure of expertise’, despite having one of the most sophisticated public health apparatuses in the world at this time.<sup>89</sup> The remainder of this article will therefore focus on the performance of medical authorities and the response of local government within Lanarkshire to the pandemic.

<sup>84</sup> *Sixtieth Annual Report of the Registrar General for Scotland, 1914* (Glasgow, 1916), p. 323–25; *Sixty-Fourth Annual Report of the Registrar General for Scotland, 1918* (Edinburgh, 1920), pp. 324–6.

<sup>85</sup> Knight, *The Social Impact of the Influenza Pandemic of 1918–19*, p. 223.

<sup>86</sup> *Airdrie and Coatbridge Advertiser*, 19 October 1918, p. 1.

<sup>87</sup> *Motherwell Times*, 11 October 1918, p. 6.

<sup>88</sup> *Hamilton Advertiser*, 19 October 1918, p. 7.

<sup>89</sup> Tomkins, ‘The Failure of Expertise’, p. 437.

## Response

Unsurprisingly, the First World War caused a great deal of disruption for the medical authorities in Lanarkshire. Dr Wilson, in his summary report, intimated how the outbreak of war saw ‘a desire expressed generally by the staff to join up for military service’, which meant that ‘the requirements of the civil service had to be greatly curtailed’. Many who joined up did so during the early stages of the war and were not able to return to their civil duties until their demobilisation in early 1919.<sup>90</sup> The necessary upkeep of key medical machinery was also impacted by the war, and in February 1919 it was recorded that the equipment of the bacteriological laboratory at the County Hospital in Motherwell had fallen into a state of disrepair.<sup>91</sup> Added to this, Dr Wilson recorded that the overall provision of hospital accommodation for all classes of patients under the control of the County authorities had been greatly impeded since August 1914.<sup>92</sup>

Furthermore, the inability of medical research to identify the influenza virus in 1918 ensured that those tasked with battling the Spanish ‘Flu’ lacked the necessary knowledge, personnel, and equipment to offer any effective treatment or cure. Instead, efforts throughout the three waves of the pandemic were focused into formulating preventative methods.<sup>93</sup> One common method applied in the attempt to halt the spread of the disease was the closure of schools. In 1918 in Lanarkshire, ninety-one schools were closed for an average period of twenty-two days, but as the matter was left to the judgement of individual MOH, the implementation of this measure varied in different districts.<sup>94</sup> In Motherwell, the MOH

<sup>90</sup> NHS A, LHB, LK13/1/24, *Summary Report of the County and District Medical Officer 1914–19*, p. 8.

<sup>91</sup> *Ibid.*, p. 72.

<sup>92</sup> *Ibid.*, p. 137.

<sup>93</sup> van Hartesveldt, ‘The Doctors and the ‘Flu’’, p. 29.

<sup>94</sup> NHS A, LHB, LK13/1/24, *Summary Report of the County and District Medical Officer 1914–19*, p. 106.

received word on 10 October from the Clerk of the Dalziel School Board that a quarter of students and nine teachers were absent from one school due to influenza, but no action was taken. It was not until the 18 October, with a rapid increase of absenteeism throughout the schools in the district, that closure was thought necessary.<sup>95</sup> In contrast, the MOH of Coatbridge recommended the closure of schools within the district at the beginning of the month, ‘owing to the prevalence of the disease and with the view of safeguarding the health and lives of the school children’.<sup>96</sup>

Members of the public were advised ‘of the nature of the disease, of the conditions favourable to its spread, and of the precautions which should be observed’ by means of handbills and posters throughout Lanarkshire, with information also given verbally in child welfare centres and homes by medical staff, health visitors, and sanitary inspectors.<sup>97</sup> Information was also disseminated through the local press, with notices on prevention appealing to the public to remain in the fresh air as much as possible; to keep all windows open; eschew crowds both inside and outside; avoid dust; and to use handkerchiefs – preferably prepared with eucalyptus oil or similar.<sup>98</sup>

However, as respiratory problems became more widespread, the concern of medical professionals grew that the ‘ordinary preventative measures [had] little or no effect in checking the spread’ of the disease and recommended the ‘preventative use of mild antiseptic gargles to the throat and sprays into the nasal passages.’<sup>99</sup> The mouth or nasal washes that constituted these ‘gargles’ were formed usually from a diluted solution of permanganate potassium and salt, and its use was hoped to reduce the risk of contracting the disease through the airways. Additionally, every person who suffered from an ordinary cold was expected, for their own

<sup>95</sup> Motherwell, North Lanarkshire Archives (hereafter NLA), UJ1/01/25 *Burgh of Motherwell Town Council Minutes*, 1918, p. 175.

<sup>96</sup> NLA, UC 1/03/25, *Burgh of Coatbridge Town Council Minutes*, 1918–19, p. 420.

<sup>97</sup> NHSA, LHB, LK13/1/24, *Summary Report of the County and District Medical Officer 1914–19*, p. 106.

<sup>98</sup> *Motherwell Times*, 25 October 1918, p. 1.

<sup>99</sup> NLA, UJ1/01/25 *Burgh of Motherwell Town Council Minutes*, p. 175.

health and for the consideration of others, to regard themselves as infectious and keep away from other people for four or five days at the very least.<sup>100</sup>

Despite MOH and doctors' best (if uncoordinated) efforts in trying to curtail the spread of the disease, it became apparent rather quickly that preventative measures were not as effective as they hoped. On 19 October, the *Airdrie and Coatbridge Advertiser* stated that the 'influenza epidemic had made considerable ravages in the town and district', with numerous deaths occurring.<sup>101</sup> The following week, the *Motherwell Times* reported that there was 'yet little signs of any abatement of the influenza epidemic raging in the town', and that in fact, 'the number of deaths this week is larger than ever'.<sup>102</sup>

Apparent though the severity of the pandemic was, advice from central government appeared unforthcoming. The LGBS kept a decidedly low profile, preferring instead to leave the problem-solving to local authorities and their MOH.<sup>103</sup> By 5 November 1918, however, the Board decided that it would be 'desirable' to offer its views 'on some administrative points' and issued a circular to local authorities. The circular suggested that local authorities utilise available accommodation in infectious disease hospitals 'or adapt some house or other building for hospital treatment of cases' and emphasised the powers available to them under the Public Health (Scotland) Act 1897, 'for home treatment of patients by the provision of medicines and nurses and medical attendance'. The Board also urged that careful consideration should be given to the closure of schools and places of public entertainment and to also 'publish information to the public, by handbill or otherwise, of the preventive measures that should be taken'.<sup>104</sup>

<sup>100</sup> NLA, UC 1/03/25, *Burgh of Coatbridge Town Council Minutes*, p. 420.

<sup>101</sup> *Airdrie and Coatbridge Advertiser*, 19 October 1918, p. 2.

<sup>102</sup> *Motherwell Times*, 25 October 1918, p. 5.

<sup>103</sup> Johnson, *Britain and the 1918–19 Influenza Pandemic*, p. 131.

<sup>104</sup> *Twenty-Fourth Annual Report of the Local Government Board for Scotland, 1918* (Edinburgh, 1919), p. xxiii.

The belated nature of the correspondence<sup>105</sup> ensured that the advice recommended – such as keeping rooms well ventilated, isolating the sick, gargling with antiseptic solutions, and keeping a good standard of cleanliness – had long been in public circulation.<sup>106</sup> Additionally, cinemas in the Lanarkshire region had already been recognised as a probable breeding ground for the spread of disease. On 10 October, the MOH for Motherwell had been in communication with managers of picture houses and theatres ‘informing them of the desirability of securing proper ventilation and cleanliness of places under their control’ and suggested ‘to the managers of picture houses and theatres the exclusion of children from their places of entertainment’ for the duration of the outbreak.<sup>107</sup> It was no surprise then that the local authorities within Lanarkshire remained indifferent to the LGBS’s recommendations and both public health committees of the Upper Ward and Middle Ward, upon receipt of correspondence from the LGBS, stated that the matter should remain the responsibility of their MOH.<sup>108</sup>

The apparent detachment of central government and the decision of local authorities to leave the matter to their MOH, however, only served to isolate medical services and left their actions vulnerable to criticism. The perceived failure to quell the spread of the disease dented public confidence in the abilities of the medical profession and led to discernible frustration. The *Bellshill Speaker* reported that ‘the disease is proving more deadly in this country than the German air raids and bombardments put together, but as yet we are content with such measures as the closing of schools’,<sup>109</sup> and the *Motherwell Times* stated that while ‘the influenza was still

<sup>105</sup> van Hartesveldt, ‘The Doctors and the ‘Flu’, p. 32.

<sup>106</sup> Tomkins, ‘The Failure of Expertise’, p. 443

<sup>107</sup> NLA, UJ1/01/25 *Burgh of Motherwell Town Council Minutes*, p. 175.

<sup>108</sup> GCA, LCC, CO1/6/1/10, *Upper Ward District Committee Minutes*, 1918–19, p. 75; GCA, LCC, CO1/6/2/29, *Middle Ward District Committee Minutes*, 1918, pp. 814–5.

<sup>109</sup> *Bellshill Speaker*, 13 December 1918, p. 4.

spreading, or at least showing no signs of abatement', the 'medical faculty seem at a loss what to suggest either as an infallible preventative or as an absolute cure'.<sup>110</sup>

Hospital admission was carried out only 'where the disease was of a serious nature, or where the conditions were such that the patient could not be properly cared for'.<sup>111</sup> The dubiety over the root cause of the influenza epidemic, and the resulting uncertainty of the medical profession over what it was fighting consequently led to a variety of treatments being proffered by doctors.<sup>112</sup> While some of the treatments proposed may have offered some symptomatic relief, others could be positively dangerous. Though then, as now, the only beneficial form of treatment involved the use of common sense, bed rest, and suitable nursing to avoid developing any secondary complications.<sup>113</sup>

Many doctors in the Lanarkshire region did recognise the importance of bed rest and also advised patients to avoid mental strain, sudden changes of temperature, and avoid the outdoors or return to work before they were fully recovered.<sup>114</sup> Others, though, attempted to hide their bewilderment at the disease by subjecting their patients to remedial experimentation. Whisky and camphor were administered as stimulants, while calomel (otherwise known as mercury chloride), saline infusions, quinine, potassium iodide and potassium acetate were all trialled without success.<sup>115</sup>

The strain placed upon medical services during the second wave of the disease led to appeals to the War Office to release trained staff and alleviate pressure, but such attempts were rejected even as the First World War entered its final stages.<sup>116</sup> Demobilisation did offer some welcome respite for the beleaguered medical authorities as doctors and other healthcare

<sup>110</sup> *Motherwell Times*, 18 October 1918, p. 5.

<sup>111</sup> NLA, UC 1/03/25, *Burgh of Coatbridge Town Council Minutes*, p. 106.

<sup>112</sup> Johnson, *Britain and the 1918–19 Influenza Epidemic*, p. 143.

<sup>113</sup> Tomkins, 'The Failure of Expertise', p. 448.

<sup>114</sup> NLA, UC 1/03/25, *Burgh of Coatbridge Town Council Minutes*, p. 420.

<sup>115</sup> NHS, LHB, LK13/1/24, *Summary Report of the County and District Medical Officer 1914–19*, p. 173.

<sup>116</sup> Knight, *The Social Impact of the Influenza Pandemic of 1918–19*, p. 170.

professionals were released from their military duties, but significant progress to restore doctors to civilian practice was not made until early February 1919, at which point the pandemic had already entered its third wave.<sup>117</sup>

Despite this, the reality remained that medical authorities, in Lanarkshire and elsewhere, were powerless to cure or prevent pandemic influenza.<sup>118</sup> Efforts made to develop a vaccine also proved fruitless. As the value of vaccination was well known, a vaccine was cobbled together hastily comprising of Pfeiffer's bacillus (the perceived causal agent) and streptococci and pneumococci bacteria. A lack of experimental controls and small sample sizes led to claims of success, and military medical services distributed the vaccine amongst soldiers while the war was ongoing in the hope of preventing the spread of the disease amongst soldiers.<sup>119</sup> Despite these efforts, the vaccine did not work.<sup>120</sup> Although the Lanarkshire County Health Department had received a supply of the anti-influenza vaccine, Dr Hunter wrote that 'no opportunity presented itself of testing the value of prophylactic inoculation', though he added that 'what would have happened if inoculation free of charge had been offered' was a matter for conjecture.<sup>121</sup>

Public patience within Lanarkshire with the performance of medical services and local authorities in providing any effective resistance to the Spanish 'Flu soon wore thin. The *Motherwell Times* highlighted the ire of the town's inhabitants, stating that it was 'the general belief that the administration of public health has been unequal to its responsibilities', and that 'popular opinion [was] convinced that official action might have been taken with satisfactory results,' a number of weeks 'before the country was seized in the grip of this disease'. It went on to report that the 'helpless way in which the public look for guidance and advice in the

<sup>117</sup> Ibid., p. 173.

<sup>118</sup> Tomkins, 'The Failure of Expertise', p. 437.

<sup>119</sup> van Hartesveldt, 'The Doctors and the "Flu"', pp. 30–1.

<sup>120</sup> Tomkins, 'The Failure of Expertise', p. 437.

<sup>121</sup> NHSA, LHB, LK13/1/24, *Summary Report of the County and District Medical Officer 1914–19*, p. 218.

present state of affairs [was] pathetic'. This led to an 'increased support for the Ministry of Health project, for which an irresistible public opinion has been created by the mortality returns of the past few weeks'.<sup>122</sup>

From the late nineteenth and early twentieth centuries, the execution of public health services on at national and local level was recognised as being uncoordinated and inadequate,<sup>123</sup> and in early 1917 the Ministry of Reconstruction (created with the aim of reorganising central government) recommended the formation of a Ministry of Health. This new department, it was proposed, would streamline and centralise the provision of public health by taking over the remit of the LGBS and health responsibilities of other government departments.<sup>124</sup> Due to the wartime situation, it was not until 3 June 1919 that the Ministry of Health came into effect in England and Wales, while Scotland, by a separate Act of Parliament was granted a Scottish Board of Health (SBH).<sup>125</sup>

While it was not the case that the Spanish 'Flu pandemic was responsible for the creation of a new Ministry of Health, it did prove useful in validating arguments for reform by exposing the limitations of local authorities in their handling of the health crisis. Advocates for the creation of a Ministry of Health argued that the Spanish 'Flu pandemic was the price paid for the delayed reform of public health services, and that its impact could have been mitigated or even averted altogether if an efficient body of health had been installed by 1918,<sup>126</sup> but whether or not a centralised authority could have sufficiently alleviated the effect of the pandemic remains questionable.<sup>127</sup> After its creation in 1919, the SBH displayed strong continuities with its LGBS predecessor, particularly in the way board members were

<sup>122</sup> *Motherwell Times*, 1 November 1918, p. 7.

<sup>123</sup> van Hartesveldt, 'The Doctors and the "Flu"', p. 35.

<sup>124</sup> J. Jenkinson, *Scotland's Health, 1919–1948* (Oxford: Peter Lang, 2002), p. 53.

<sup>125</sup> *Ibid.*, p. 54.

<sup>126</sup> Tomkins, 'The Failure of Expertise', p. 444.

<sup>127</sup> Johnson, *Britain and the 1918–19 Influenza Epidemic*, p. 141.

appointed,<sup>128</sup> and it cannot be said with any certainty that the SBH would have acted along different lines or implemented the same or different measures more efficiently or earlier.<sup>129</sup>

Far from welcoming such developments, Lanarkshire local authorities displayed marked hostility. In July 1918, just as the first wave of the influenza pandemic spread throughout region, the Secretary of Scotland, Robert Munro, and the Minister of Reconstruction, Christopher Addison, met a deputation from Scotland to discuss the formation of a centralised Ministry of Health. At the meeting, members present representing the District Committee of the Middle Ward ‘pressed that the present Public Health authority should not be superseded in health administration’ due to their ‘creditable record’. They went on to say that they ‘did not think that any other authority that existed or that might be created had any title or right to supersede the District Committee in their administration’.<sup>130</sup> Even in May 1919, after the full impact of the epidemic had been realised, the District Committee of the Middle Ward ‘instructed the clerk to make certain representations against the proposals of the [Scottish Board of Health] bill’.<sup>131</sup>

The trepidation shown towards the installation of the SBH by Local Authority officials within Lanarkshire was representative of the growing trend of state involvement that occurred throughout the twentieth century.<sup>132</sup> By the end of the nineteenth century it was clear that individualistic or ad hoc measures promoted by local government could not ensure an acceptable or even basic level of social comfort or public health.<sup>133</sup> Changes were made rapidly between 1906 and 1914 under the Liberal Government, as it introduced national health insurance, old age pensions, unemployment insurance, child welfare services, free school

<sup>128</sup> Jenkinson, *Scotland's Health, 1919–1948*, p. 47.

<sup>129</sup> Tomkins, ‘The Failure of Expertise’, p. 444.

<sup>130</sup> *Bellshill Speaker*, 5 July 1918, p. 4.

<sup>131</sup> GCA, LCC, CO1/6/2/30, *Middle Ward District Committee Minutes*, 1919, p. 446.

<sup>132</sup> I. G. C. Hutchison, ‘Government’, in T.M. Devine and Richard Finlay’s (eds.) *Scotland in the Twentieth Century*, (Edinburgh: Edinburgh University Press, 1996), p. 46.

<sup>133</sup> H. Dingwall, *A History of Scottish Medicine* (Edinburgh: Edinburgh University Press, 2003), p. 212.

meals, school medical services, and national schemes for the treatment of tuberculosis and venereal diseases,<sup>134</sup> and throughout the war the need for further reform became more apparent.<sup>135</sup> The fears of local authorities in Lanarkshire were soon realised as the responsibilities of public health and social care increasingly fell within the purview of central government, both limiting the remit of local government bodies and depreciating the appeal of local elected office. As grants from central government to local authorities increased after 1918, the influence and initiative of local government in Scotland gradually diminished, becoming little more than a vehicle for the administration and deliverance of central government policy.<sup>136</sup>

### **Conclusion**

The 1918 Influenza Pandemic was the greatest outbreak of disease the world had witnessed in hundreds of years, the extraordinary nature of which defied the common perception of influenza as a mundane or innocuous disease.<sup>137</sup> While the true human cost is unquantifiable, existing records confirm that at least one thousand people in Lanarkshire died as a result of the Spanish 'Flu between 1918–19. The records also verify that the disease was prevalent in Lanarkshire well in advance of the official date registered as the beginning of the pandemic in Scotland, with notable outbreaks documented from the beginning of May 1918. Beyond early instances of infection, however, Lanarkshire's overall experience of the Spanish 'Flu was marked by the features commonly associated with the disease, namely its virulence and lethality, its manifestation across three distinct waves, and the unusual vulnerability of young adults to succumb to respiratory complications.

<sup>134</sup> Johnson, *Britain and the 1918–19 Influenza Epidemic*, p. 138.

<sup>135</sup> Dingwall, *A History of Scottish Medicine*, p. 213.

<sup>136</sup> Macdonald, *Whaur Extremes Meet*, p. 195.

<sup>137</sup> Johnson, *British and the 1918–19 Influenza Pandemic*, p. 203.

Furthermore, the timing of the pandemic had a significant effect on subsequent official responses. Although the process of centralisation was underway, the arrival of Spanish 'Flu in Scotland a year prior to the formation of the Scottish Board of Health in 1919 meant that public health remained under the jurisdiction of local government authorities. In Lanarkshire, however, the apparent desire of local government to maintain autonomy in the administration of public health was not reflected in their efforts to alleviate the crisis. Instead, the responsibility was consigned to local medical services, already overburdened by wartime commitments.

While this article has offered the first investigation into the impact of the Spanish 'Flu pandemic on a local area within Scotland, there is still more research required to enable a fuller understanding of the pandemic and its impact across the country as a whole during 1918–19. That it had a tremendous impact across all areas of society at a key time of war and reconstruction in the twentieth century is undeniable, though at present the full complexities have still to be revealed. It is only now, over one hundred years later, that the Spanish 'Flu and its impact have reached the public consciousness and started to command the scholarly attention it deserves.