

## Human Ties – A Second Second Wave?

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As COVID-19 lockdown measures in Scotland continue to ease, concerns over a possible second wave do not. But how likely is a second wave of COVID-19 in Scotland, and what happened when the country was faced with a second wave of infections during the 1918 Influenza Pandemic over a hundred years prior? On 16 June 2020, Nicola Sturgeon warned that a 'reckless relaxation of lockdown' must be resisted. Lifting restrictions prematurely would, according to the First Minister, risk the resurgence of the virus and cost more lives and the country's economic productivity.<sup>1</sup> In contrast, the Emeritus Professor of bacteriology at the University of Aberdeen, Hugh Pennington, suggested that the evidence 'supporting the notion of a second wave or peak...that would swamp the NHS', was 'very weak'. In his opinion, it is more likely that there would be a continuation of 'infections, many in the form of localised outbreaks, but not waves or peaks'.<sup>2</sup>

The First Minister, however, is not alone in urging caution. 'Europe should brace for a second wave', reported *The Guardian* on 20 May 2020 in an interview with the director of the European Centre for Disease Prevention and Control, Dr Andrea Ammon. According to Dr Ammon, the likelihood of a second wave of coronavirus infections is no longer theoretical. Instead, the question is 'when and how big'. Additionally, Dr Ammon added that as infection

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<sup>1</sup> 'Coronavirus: Sturgeon warns against 'reckless' easing of lockdown', *BBC News* <<https://www.bbc.co.uk/news/uk-scotland-52967726>> [accessed 16 June 2020].

<sup>2</sup> Rhona Shennan, 'Will there be a second wave of coronavirus in the UK? If cases of the virus could increase again - and what happened in Beijing explained', *The Scotsman* <<https://www.scotsman.com/health/will-there-be-second-wave-coronavirus-uk-if-cases-virus-could-increase-again-and-what-happened-beijing-explained-2872312>> [accessed 16 June 2020].

rates decrease, 'people think it is over', which in her opinion, 'it definitely isn't'.<sup>3</sup> Her anxiety was also shared by the Chief Medical Officer for England, Professor Chris Witty, who highlighted that maintaining control of the pandemic throughout the relaxation of lockdown restrictions remains an 'extremely difficult balancing act' for countries.<sup>4</sup>

Historical examples have also been invoked to illustrate the dangers of a second wave, with the World Health Organisation stating that past pandemics have been characterised by 'waves of activity spread over months'.<sup>5</sup> Indeed, the 1918 Influenza Pandemic, the deadliest pandemic on record,<sup>6</sup> consisted of separate waves that lasted for a few weeks or months at a time. In most affected countries, the majority of deaths occurred during the second wave, from around September to December 1918.<sup>7</sup>

The number of deaths attributed to the pandemic in Scotland was recorded as 17,575, though research by Niall Johnson has estimated that the real figure instead rests between 27,641 and 33,771.<sup>8</sup> After a relatively mild first wave,<sup>9</sup> mortality in Scotland peaked in November 1918 (though some towns and cities, including Edinburgh and Glasgow, recorded

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<sup>3</sup> 'Europe should brace for second wave, says EU coronavirus chief', *The Guardian* <<https://www.theguardian.com/world/2020/may/20/top-eu-doctor-europe-should-brace-itself-for-second-wave-of-coronavirus>> [accessed 16 June 2020].

<sup>4</sup> Shennan, 'Will there be a second wave of coronavirus in the UK?' *The Scotsman* <<https://www.scotsman.com/health/will-there-be-second-wave-coronavirus-uk-if-cases-virus-could-increase-again-and-what-happened-beijing-explained-2872312>> [accessed 16 June 2020].

<sup>5</sup> Eva Ontiveros, 'Coronavirus "second wave": What lessons can we learn from Asia?', *BBC News* <<https://www.bbc.co.uk/news/world-asia-52807255>> [accessed 16 June 2020].

<sup>6</sup> Jeremy Rossman, 'Can we please stop talking about a second wave of COVID-19', *The Conversation* <<https://theconversation.com/can-we-please-stop-talking-about-a-second-wave-of-covid-19-140140>> [accessed 19 June 2020].

<sup>7</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*, vol. 37/no. 4, (2007), p 362.

<sup>8</sup> Niall Johnson. 'Scottish 'Flu: The Scottish Experience of 'Spanish Flu'', *The Scottish Historical Review*, vol. 83/no. 216, (2004) p 226

<sup>9</sup> E. W. Jones, *Influenza 1918: Disease, Death, and Struggle in Winnipeg* (Toronto: University of Toronto Press, 2007), p 14.

their highest mortality rates during the subsequent third wave of the pandemic, from January to April 1919).<sup>10</sup>

The second wave of the 1918 Influenza Pandemic was much more dangerous,<sup>11</sup> and in Lanarkshire, the County and District Medical Officer, Dr John Wilson, explained that the onset of respiratory complications in many cases resulted in an 'alarmingly high' death-rate.<sup>12</sup> Why the virus mutated is unclear.<sup>13</sup> Similar to the symptoms documented during the first wave, victims of the second wave strain suffered from nausea, weakness, dizziness, and headaches. However, with the development of respiratory complications, such as pneumonia or bronchitis,<sup>14</sup> many victims experienced an exaggerated immune response (a cytokine storm) which caused necrosis, vasodilation, and overwhelmed the lungs with fluid.<sup>15</sup>

One example that highlights the escalation in mortality during the second wave took place across a period of three days in a cemetery in Motherwell, where an increase in the number of burials prevented cemetery staff from opening enough graves.<sup>16</sup> With many deaths having taken place within the home, the prospect of postponing burials represented a significant health risk to the remaining inhabitants. As deaths outstripped resources, families were faced with a harrowing prospect.<sup>17</sup> With little other option, relatives 'dug the graves of their own dead'.<sup>18</sup>

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<sup>10</sup> Johnson. 'Scottish 'Flu: The Scottish Experience of 'Spanish Flu'', p 218-220.

<sup>11</sup> Joan Eileen Knight, *The Social Impact of the Influenza Pandemic of 1918-19: with Special Reference to the East Midlands* (University of Nottingham, PhD Thesis, 2015), p 56.

<sup>12</sup> Glasgow, Mitchell Library, NHS Greater Glasgow Archives [NHS], Lanarkshire Health Board [LHB], LK13/1/24, *Summary Report of the County and District Medical Officer 1914-1919*, 1919, p 102.

<sup>13</sup> Knight, *The Social Impact of the Influenza Pandemic of 1918-19*, p 56.

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

<sup>15</sup> Butler and Hogg. 'Exploring Scotland's Influenza Pandemic of 1918-19: Lest we Forget', p 363.

<sup>16</sup> *Motherwell Times*, 1 November 1918, p 5.

<sup>17</sup> Knight, *The Social Impact of the Influenza Pandemic of 1918-19*, p 183.

<sup>18</sup> *Motherwell Times*, 1 November 1918, p 5.

But while this may be rather unsettling to digest in the midst of our current situation, it is necessary to be aware of certain mitigating factors before any comparisons can be considered. One important factor is timing. The 1918 Influenza Pandemic emerged in the latter stages of the First World War which, unsurprisingly, greatly disrupted the provision of medical services. Many medical professionals joined up for military service and were not able to return until early 1919 following demobilisation.<sup>19</sup> Added to this was the inability, in 1918, to identify the virus responsible, which ensured that those facing the pandemic lacked the requisite knowledge and support to offer any effective response.<sup>20</sup>

Additionally, the forces in place in Scotland to combat the pandemic in 1918 were very different to what would be expected by twenty-first century standards. With no National Health Service and direction from central government seldom given, public health remained solely within the hands of autonomous local authorities and their Medical Officers of Health.<sup>21</sup> The largely fragmented composition of local government in Scotland,<sup>22</sup> combined with the absence of a central medical body, ensured that there was no national or uniform strategy in place to tackle the pandemic.

Furthermore, as Dr Jeremy Rossman has highlighted, the influenza virus responsible for the 1918 Influenza Pandemic (H1N1) and the virus responsible for the outbreak of COVID-19 (SARS-CoV-2) are 'very different' with 'very different behaviour'. In fact, Dr Rossman has stated that the concept of a second wave of COVID-19 has stemmed from a 'flawed comparison with the seasonality of the flu virus'. As evidence from many countries has shown, a strong public health system (including networks for testing and tracing), together with

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<sup>19</sup> NHSA, LHB, LK13/1/24, *Summary Report of the County and District Medical Officer 1914-1919*, 1919, p 8.

<sup>20</sup> Fred van Hartesveldt, 'The Doctors and the "Flu": The British Medical Profession's Response to the Influenza Pandemic of 1918-19', *International Social Science Review*, vol. 85/no. 1/2, (2010), p 29.

<sup>21</sup> Niall Johnson, *Britain and the 1918-19 Influenza Pandemic: A Dark Epilogue* (London: Routledge, 2006) p 2.

<sup>22</sup> Catriona Macdonald *Whaur Extremes Meet* (Edinburgh: John Donald, 2009) p 193.

public participation in hygiene and distancing measures ‘is highly effective at minimising COVID-19 transmission’. A second wave of COVID-19, therefore, is not inevitable.<sup>23</sup>

Whether or not Scotland will witness a future spike of infections remains to be seen. But while it is true that such an emergence would have a historical precedent, Scotland, undoubtedly, should be better equipped to face a second wave of COVID-19 in 2020 than it was during 1918-1919 to face the second wave of pandemic influenza.

*For more on Scotland and the 1918 Influenza Pandemic, see Katharine McCrossan (2021) Spanish 'Flu in Scotland: a Lanarkshire case study. Journal of Scottish Historical Studies, 41(1), pp. 65-86. (doi: [10.3366/jshs.2021.0314](https://doi.org/10.3366/jshs.2021.0314))*

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<sup>23</sup> Jeremy Rossman, ‘Can we please stop talking about a second wave of COVID-19’, *The Conversation* <<https://theconversation.com/can-we-please-stop-talking-about-a-second-wave-of-covid-19-140140>> [accessed 19 June 2020].