Dr Roger McNeill and public health in the Highlands and Islands of Scotland

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ABSTRACT Roger McNeill was born in 1853 on Colonsay in the Inner Hebrides, the son of a cattle herder. He graduated with a degree in medicine from Edinburgh University, where he studied with Joseph Lister, among others. After working in London during a smallpox epidemic, he received a gold medal and honours for his M.D. thesis in 1881. McNeill returned to Scotland as the Resident Medical Officer at Gesto Hospital on the Isle of Skye. From there, he launched and published the first statistical research about the health of Highland crofters. His was an illustrious yet understated career in public health: he was the first president of the Caledonian Medical Society (1881–82), he earned a Diploma in Public Health from Cambridge University (1889), he was the first Medical Officer of Health for Argyll (1890–1924), wrote The Prevention of Epidemics and the Construction and Management of Isolation Hospitals (1894), and was the first witness before Parliament's Dewar Committee in Oban in 1912. McNeill and other members of the Caledonian Medical Society testified about medical services in remote Scotland, encouraging a revolution in healthcare throughout the Highlands and Islands. The committee's report led to the foundation of the Highlands and Islands Medical Service, a forerunner of the National Health Service established in 1948.

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INTRODUCTION

In 1850, the Royal College of Physicians of Edinburgh conducted a survey, the Coldstream Inquiry, 'to determine the proportion which the [Medical] Practitioners bear to the whole [Highland and Island] population and to ascertain whether there be much complaint on the part of the people of the difficulty in getting medical aid.' The returns identified only 133 medical men serving 370,000 people over the 14,000 square miles. Like the island of Colonsay, more than half of the parishes had no resident doctor. In 1852, the College presented the survey's results, A Statement Regarding the Existing Deficiency of Medical Practitioners in the Highlands and Islands, with no recommendations.^{2,3} It took another 60 years for this issue to come to public and political prominence, and Roger McNeill played a major role in these developments.

In 1853, Ruaraidh (later anglicised to Roger) McNeill was born to Angus McNeill, a cattle herder, and his second wife Margaret Smith at Ardskenish, in Colonsay's southwest where 'the sea, as far as the eye can see, rises in stormy weather into foaming masses of roaring breakers...'4 He was the youngest son of his father's 11 children. In 1859 (when he was six years old), Roger McNeill's mother died without the services of a resident doctor on the island.⁵ This was an event which would influence his life and work.

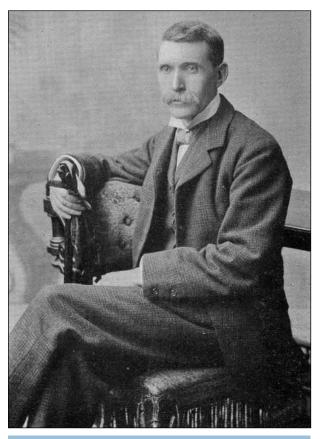


FIGURE I Dr Roger McNeill (1853–1924). Image from the Caledonian Medical Journal 1924; XII.

When McNeill entered Edinburgh University in 1872, he undoubtedly had a recommendation from Colonsay's laird, Sir John McNeill (no relation), who had graduated in medicine from Edinburgh (in 1814). Sir John had reviewed sickness and death among Crimean soldiers (in 1855), and chaired Scotland's Board of Supervision (from 1845 to 1868).6 Roger McNeill studied anatomy under William Turner, physiology under John Gray McKendrick, and systematic surgery under James Spence. The Oban Times proudly declared in April 1874 that he was the 'prizeman in Surgery (Junior Division)' and took 'second-place honours in Physiology." The following year he advanced to study clinical surgery under Spence's colleague and the medical school's most renowned figure, Joseph Lister. McNeill's time studying under him (1874-75, summer 1875, 1876–77) were also Lister's last years at Edinburgh. The ObanTimes announced more good news in September 1877: 'We are glad to learn that Mr Roger McNeill, son of Angus McNeill, farmer here [Colonsay], passed his final examination for Bachelor of Medicine and Master of Surgery in the University of Edinburgh.'8

MCNEILL'S EARLY CAREER IN ENGLAND

After achieving his qualification, he moved to Levenshulme, near Manchester, where he entered general practice. Persistent 'chest trouble' forced him from the practice to which he never returned. To recover, he became a ship's surgeon with the British India Steam Navigation Company for a few years. In 1880, he accepted an appointment as an assistant medical officer in London's Metropolitan Asylums Board. During a smallpox epidemic, McNeill was assigned to the Fever Hospital at Homerton. When the epidemic intensified, the Board shifted new cases onto old warships docked at Greenwich. Roger McNeill was promoted to Resident Medical Officer of the floating hospitals. He wrote an M.D. thesis based on studies of the hundreds of cases on board, The diagnostic value of the initial rashes of smallpox which was submitted to Edinburgh University. On I August 1881, Roger McNeill was awarded the degree of M.D. with first class honours and a gold medal.9 Thomas Grainger Stewart, Physician to the Queen in Scotland, considered the research the best account with which he was acquainted of certain points in the clinical history of variola.'10

The year after McNeill left Edinburgh, three senior medical students met on 23 February 1878 at 6 Valleyfield Street, Edinburgh. They created 'The Caledonian Medical Society... to form a bond of union among medical workers who were associated in any way with the Highlands of Scotland.'' One of the founders, William McNaughton, also worked in London during the smallpox epidemic and also received an M.D. from Edinburgh in 1881. He encouraged the Society to hold an annual general meeting at 16 Trevor Square in Knightsbridge, London, on 7 October 1881. The meeting

ended with an election of office-bearers, then re-convened two days later on board the Hospital Ship Endymion when the chair was occupied by the newly elected President, Dr Macneill [sic].'12

MCNEILL'S TIME ON THE ISLE OF SKYE

In 1883, the trustees of the Gesto Hospital in Skye appointed Roger McNeill as its Resident Medical Officer. In the Hebrides, harsh weather, bad harvests, poor fishing, hungry tenants, radical leaders and a nervous government had turned the island into a battleground. Some of the Skye lairds were sympathetic to the crofters. One of them, Kenneth MacLeod of Greshornish, had privately funded Gesto Hospital at Edinbane. Opened in 1878, it was a one-story building and 'a free institution... for the reception of patients from all parts of Skye.'13 McNeill, with an Argyll accent to his Gaelic, and with sterling credentials from Edinburgh's medical school, felt overwhelmed: 'I went as a total stranger to the Isle of Mist and endeavoured to do my duty to all to the best of my ability.'14 Gesto Hospital was to prove a unique place for unique work by Dr McNeill. The Napier Commission was also established in 1883 to investigate the conditions experienced by the crofters and cottars in the Highlands and Islands of Scotland.

In 1885, the Edinburgh Medical Journal published (in three parts) McNeill's research about '...the Initial Rashes of Smallpox.'15 The next year he followed with another article, almost certainly inspired by Lister's work, The Analgetic Action of Carbolic Acid and the Cresol Group of Compounds.16 In an 1886 Report to the Trustees of the hospital, McNeill included an extensive table of death rates among the Hebrides. These were unique data which he would soon reference in the Edinburgh Medical Journal with the help of his friend, Donald Mackinnon. After all, both were born to crofter parents in Colonsay, both achieved high academic honours at Edinburgh University, and each distinguished himself to a Royal Commission whose work forever changed the Highlands and Islands. While Mackinnon's public service had started on the Napier Commission, McNeill's would culminate almost thirty years later with the Dewar Committee in 1912. Where one sought to protect crofting cultures, the other sought to save crofters' lives: 'No account of any scientific value has, to my knowledge, ever been given of the state of the public health in the Hebrides...The facts available have not been classified in such a way as to give any clear idea of the healthiness or unhealthiness of the inhabitants.'17

AFTER THE NAPIER COMMISSION

In February 1886, the Secretary for Scotland George Trevelyan introduced a Crofters' Holding Bill to Parliament, almost two years after the Napier

Commission reported on conditions in the Highlands and Islands. In May, Donald Mackinnon, the Professor of Celtic Languages at Edinburgh University, and youngest member of the Napier Commission, chose The Scotsman newspaper to present his current view of the debate. To describe conditions in the Hebrides – Inner and Outer, north to south – he cited the tables prepared by Roger McNeill which demonstrated that 'the standard of health varies greatly in the different islands.' Inside the many one-room houses on Islay or among the ancient cottages in Mull, it was still a precarious life where 'a single bad harvest or an unsuccessful fishing affects the mass of community.' For Parliament, Mackinnon went on, 'facts and figures such as these should afford guidance in framing remedial measures for the permanent improvement of the people.'18

To elaborate and expand upon the Gesto Report, Roger McNeill presented 'Remarks on the Public Health of the Insular Rural District of Scotland' in the Edinburgh Medical Journal, in two parts in July and August 1887. He cited the Gesto Report and the table showing yearly and average death rates in the Hebrides. He quoted average mortality rates of the islands and registration districts to support the 'apparent healthiness of the insular rural district.' But he highlighted a glaring exception. The islands' percentage of deaths of women at childbirth exceeded even that in the most unhealthy group of the towns.' He stated that 'This is probably owing to the paucity of medical practitioners or even skilled midwives' throughout the Highlands and Islands. Otherwise, his focus was the numerical variation of the mortality rates in the Hebrides. A mortality rate appeared to depend on a complicated blend of geology, climate, age-structure, sanitation, medical attendance, 'the social condition, habits, and occupation of the population, as well as the communication between them and centres of disease.' In conclusion he wrote, There is no constituted organisation to look after the public health except in name [i.e. Scotland's Board of Supervision]... the causes which bring about the difference in mortality are more or less remediable, and might be brought under control."

Roger McNeill wanted more formal qualification in the emerging field of public health. He had studied medical jurisprudence as a student at Edinburgh in 1876, witnessed the legendary efforts of that city's first Medical Officer of Health (MOH), Dr Henry Duncan Littlejohn, served during London's smallpox epidemic in 1880–81, and published papers about Highland mortality. He prepared for the examination with his friend, colleague, and fellow member of the Caledonian Medical Society, William McNaughton. Cambridge University awarded each of them its Diploma of Public Health in 1889.²⁰ This was an opportune time for a qualified doctor with ambitions in public health. Up until this point, choosing public health as a career meant acting as a 'medical policeman' with little remuneration and less security than a general practitioner.

Scotland's Local Government Act of 1889 protected the job of a county's MOH, providing more security for those entering the field.

ARGYLL'S FIRST MEDICAL OFFICER OF HEALTH

McNeill revised and expanded his Remarks on the Public Health of the Insular and Inland Rural Districts of Scotland in 1890. At the same time, Argyll County Council advertised for its first County Medical Officer. The successful applicant would 'be the Medical Officer of Health for each of the county districts and to be allowed to act as medical officer of health or consulting medical officer of health for any of the county burghs.'²¹ The Oban Times announced the Council's choice with his many credentials, accomplishments, and honours: 'Dr McNeill is also author of several able papers in medical subjects – "papers of conspicuous merit," according to Sir Joseph Lister.'¹⁰

The Caledonian Medical Society expanded its early Journal in July 1891, and Roger McNeill took full advantage. In Volume I he published The Housing of the Poor in the West Highlands by a Member of the Caledonian Medical Society anonymously but astute readers were left in little doubt as to the author. The paper vividly described the lack of drainage and ventilation in crofters' cottages, coupled with their attitudes about disease which 'put this down to the mysterious will of Providence into which they should not spy.'22 Because he could not supply the Highlands and Islands with more doctors, McNeill proposed an alternative strategy in his 1894 book, The Prevention of Epidemics and the Construction and Management of Isolation Hospitals.23 It received favourable reviews in The Lancet²⁴ and the British Medical Journal.²⁵ The Edinburgh Medical Journal noted that 'the Corporation of Edinburgh has presented copies of this book to the members of its Health Committee, and we should counsel all Local Authorities to follow such an excellent example.²⁶

Meanwhile, Professor Donald Mackinnon looked at some of Scotland's oldest documents to resurrect the tradition of caring for the public health. In his opening lecture to the Celtic class on 30 October 1894, he chose The Gaelic Medical Manuscripts and Their Authors. He described King James VI's confirmation of the last Physician of the Isles almost three hundred years before; the monarch expected Fergus McBeath to promote applications and cures throughout Argyll. Mackinnon believed McNeill to be a successor in this line of physicians tasked with caring for the public health, following in the Celtic tradition: 'Public opinion has recently awakened to the importance of public health. The County of Argyll has appointed as its first officer a distinguished graduate of this university, a man in the front rank of his profession... my friend Dr McNeill...'27,28

Not always popular with the public, Roger McNeill was ceaseless in his efforts to improve the health of the people of Argyll. In May 1896, he issued the Annual Report of the Health and Sanitary Condition of the County and Districts. It was a compendium of vital statistics, schools, nurses, hospitals, disinfection, new houses, and 'progress and improvements wanted.' In three successive editorials, the Oban Times applauded the report. The editor knew that McNeill's work was often ignored by the public: 'The Medical Officer sets himself a hard task when he tries to convince the heterogeneous authority to which he is primarily responsible... it is amazing, after due allowances for permissible difficulties, how many of the simple reforms he may suggest and urge are so persistently ignored and shelved.'29

COLONSAY'S FIRST DOCTORS

Roger McNeill never lost touch with fellow practitioners in the field of public health. In September 1899, he traveled to Blackpool for the Congress of the Institute of Public Health and presented The Importance of Teaching Domestic Science as an Aid towards the Improvement of the Public Health. The speech merited publication in the Caledonian Medical Journal and summary in the British Medical Journal since 'the elements of hygiene and physiology, the theory and practice of cooking, laundry work, dressmaking, and housewifery or general household management' should go into every school's curriculum. Likewise, he never lost sight of the challenges in the rural districts of Argyll where the struggle to get a resident doctor often became a struggle to keep one. These challenges were clearly evident in Colonsay.

The first doctor arrived in Colonsay in January 1897, the second left with much regret in April 1901. A female doctor began in June of that year under a contract which could be terminated at two months' notice by either party. She was followed by a succession of four female doctors until 1909, when the Parish Council recorded their 'regret that because of the small salary they are able to offer, Medical Officers do not stay on an average more than a couple of years.' When a doctor requested a three week holiday in April 1910, it was approved 'on condition that she will continue to be Medical Officer in the Parish for a year.' She almost met the obligation, but resigned in February 1911.³²

Despite the Public Health Act of 1897, Roger McNeill's campaign to prevent epidemics and construct hospitals fared poorly in Argyll. In 1900, the Islay District Committee believed an isolation 'hospital on such a scale is superfluous.' Six months later the Committee repeated that 'such a hospital [near Bowmore] would be of no benefit to the Parish owing to the long distance which patients would have to travel.'33 In 1906, when the Local Government Board in Edinburgh circulated an inquiry 'with regard to administrative control in pulmonary phythisis [sic],' the County Council assigned Dr McNeill to consider the

question. Even Argyll's larger towns of Campbeltown, Dunoon, and Lochgilphead showed 'no accommodation available for tuberculosis.'³⁴ Progress had slowed on another front too. By 1909, only 10 of 166 schools in the county offered 'cookery classes' as any part of Domestic Science in the curriculum.³⁵

PRELUDE TO THE DEWAR COMMITTEE

Roger McNeill wanted, and needed, more of the Scottish medical community to see more of the Gaidhealtachd (the Gaelic-speaking area of Scotland) where the numbers of doctors, nurses and teachers were low. At the 1909 meeting of the Caledonian Medical Society, he proposed that the 1910 meeting be held in Fort William. The president-elect and the Society's Council appointed a sub-committee to make the arrangements, and McNeill was one of the three chosen to be a member. The Council added a stipulation about Fort William 'that before 15th March 1910, at least fifteen members write either the President or the Honorary Secretary promising to attend.'36 More than enough members arrived at the Cameron Campbell Library in Fort William on 23 September 1910. The Society had cast a wide net of official and special invitations. One went to Sir John Dewar, MP for Inverness, who nurtured an abiding concern over medical services in the Highlands and Islands; he sent an apology for his absence.

McNeill delivered little good news in his annual report for 1911. The county of Argyll barely managed with 54 doctors for the 69,603 people, or one doctor per 1,289 inhabitants. With most of the population crofting or fishing, their hard work and remote cottages fostered a self-reliance almost resistant to change. Throughout the Highlands and Islands, 'many are not yet convinced that the prevention of poverty, ill-health, and disease, or the lengthening of human life, are matters over which man has really any control.' McNeill still believed that more doctors, with adequate salary, reasonable territory, state support, and more authority, could and would enforce policies toward a better standard of the public's health.

Prime Minister Lloyd George agreed with these recommendations when he introduced the National Health Insurance Bill in 1911. He aimed to improve the health of wage-earners and thus create a more dependable workforce, particularly at a time of keen economic competition with the Continent, especially Germany. But his scheme excluded Scotland's crofters who seldom had any money and rarely received wages. The government had no desire to provoke unrest among the Highlanders similar to the fights over rents and rights in the 1880s, and were mindful that it was also in a prime territory for recruiting into the military services. The situation worsened when the Medical Relief Grant to the Highlands and Islands was severely cut in 1912.³⁸

THE HIGHLANDS AND ISLANDS MEDICAL SERVICE COMMITTEE (THE DEWAR COMMITTEE)

In 1912, Lloyd George appointed the Highlands and Islands Medical Service Committee under Sir John Dewar. He charged the Dewar Committee 'to consider at an early date how far the provision of medical attendance in districts situated in the Highlands and Islands of Scotland is inadequate, and to advise as to the best method of securing a satisfactory medical service therein...'39 The nine-member Committee (including three doctors) wasted little time between the announcement of its establishment in July to its first public session in Edinburgh on 15 August 1912. Witnesses from the Local Government Board, the Office of the Registrar General, and the General Medical Council testified about the low number of doctors and nurses in the Highlands and Islands, the high number of uncertified deaths, low salaries, substandard housing and transportation, and the reduction in the Relief Grant.

The Committee travelled to Inverness for three days of public meetings. On 19 August, the MOHs for Invernessshire and for Ross and Cromarty joined general practitioners in giving opening testimony. They described and reinforced the difficulty and expense of travel which discouraged the crofters from seeking care. By the third day, the Committee shifted its focus onto tuberculosis. Both the benefactor and the superintendent of the Seaforth Sanatorium described the ideal of a modern facility free-of-charge to the people of Ross and Cromarty and to the island of Lewis. With a stop on the remote Fair Isle, the Committee concluded its first round of travel and hearings at Lerwick in the Shetlands on 28 August. The same themes of poverty, isolation and untreated diseases pervaded these sessions held over 14 days.40,41

The public sessions resumed in Sutherland, at Bettyhill, on 7 October. The Committee and staff crossed to Stornoway for a Town Hall meeting on 11 October. The parish of Uig provided statistics, with 'one doctor for 4,500 inhabitants', and from Barvas, '7,000 living in hamlets scattered along a seaboard of 27 miles, and there is but one doctor'; the 1911 Argyll ratio of 'one per 1,289' paled in comparison. At the second meeting in Stornoway, the need for a healthy population was reiterated: '...between the Royal Naval Reserve, the militia, the Territorial Force, and the regular army, over 4,000 Lewis men were being trained in the defence of the country.'42.43 The committee sailed to Dunvegan for morning hearings on 18 October, then stopped at Gesto Hospital in Skye. They found that, by 1912, there were only 18 general hospitals in the crofting counties.44

The Dewar Committee held public meetings at Inverness, home of Sir John Dewar, and at Oban, Dr Roger McNeill's base. As Argyll's MOH, he orchestrated a series of witnesses who outlined the unacceptable levels of crofters' health and medical services in the county, and beyond. He began the testimony session in the County Council Chambers, followed by five general practitioners from Argyll, colleagues, protégées and members of the Caledonian Medical Society. They consistently blamed the scarcity and high turnover of county general practitioners on low salary; their direct solution was a minimum salary under a state medical service. McNeill and his colleagues addressed the usual complaints of 'difficult travel' and 'lack of communications' with a direct solution: the scattered doctors and nurses in Argyll needed motor boats, motor cars, motor cycles and telephones.

In order to portray the life-and-death situations in the Highlands and Islands, Roger McNeill shared a very personal memory about childbirths: 'I know myself of two such cases which occurred in the island of Colonsay, before a resident doctor was provided, where two married women died before a doctor could be got from Islay - leaving two young families of seven and five, ranging in age from birth upwards, uncared for.'45,46 According to the full coverage in the Oban Times, 'Dr Roger McNeill gave an exhaustive account of the efforts made by the public authority to combat tuberculosis in the county.'47 The day ended with a tour of the Argyllshire Sanatorium. Next day, the committee heard that in South Uist and Barra deprivations prevailed, with a lack of food for infants and no nurse for a population of 5,000. There and elsewhere, tuberculosis predictably preyed upon the underfed and the undernourished at all ages.

The last day of evidence in Glasgow featured distinguished guests well-known in public, political and social circles. The Duchess of Montrose testified as President of the Govan Nursing Society about placements in rural areas. The presence of, and proposals by, Sir Donald MacAlister, Principal of Glasgow University and President of the General Medical Council, were 'regarded as of the greatest importance.' He called for a state medical service to govern salaries, appointments, holidays, postgraduate courses and retirements. Glasgow's Inspector of the Poor, who knew some of the worst conditions in Scotland, showed that improvements to services were possible, providing evidence of '2,146 boarded-out children' receiving voluntary medical and dental care. Undoubtedly, the Glasgow children were 'much better off than the native children of the Highlands and Islands.'48 The Dewar Committee had examined over 200 witnesses in more than 20 sessions, at more than 15 sites, over approximately six working weeks.

THE DEWAR REPORT

Today, as Hamilton put it, 'the full Report, with its verbatim evidence is still a remarkable document.'49 There were sections on the poverty of the crofters, their insanitary dwellings, survival of superstition, parish councils being overburdened, the smallness of doctors incomes, the percentage of uncertified deaths, the effect of the insurance act, and the inadequacy of existing subsidies. Recommendations widely reported in the press included the need for trained nurses, hospitals, the provision of medicine, dental treatment, and a suggested scale of fees.⁵⁰ The report reflects the research, publications, and efforts of Roger McNeill from the 1880s onward.

The Caledonian Medical Journal supported and praised the Dewar Committee in a 1913 editorial: 'The Report is a thoroughly convincing and, in places, a most pathetic document. It should be in the hands of every member of this Society. It tells, with copious quotations from the testimony of trustworthy witnesses, the appalling difficulties and defects of medical service within the Celtic fringe.'51 Some of the most crucial witnesses were the county MOHs, and members of the Caledonian Medical Society, like Roger McNeill. With uncharacteristic speed and consensus, Parliament passed the Highlands and Islands Medical Service Act on 15 August 1913; included were provisions for nursing and a substantial annual grant. Sir John Dewar would chair the Highlands and Islands Medical Service (HIMS) Board and Sir Donald MacAlister agreed to serve with two doctors from the Committee. While they set to work, Roger McNeill returned home to face drama on a local scale. In September, the Royal Navy 'invaded' Colonsay where the First Lord of the Admiralty, Winston Churchill, stood atop Beinn Orasa on the neighbouring island of Oronsay to watch gunnery practice and rehearse for war. 52,53 In November, McNeill failed to convince the Colonsay blacksmith to let him treat his eight-year-old son for tuberculosis, even though any costs were covered by the National Health Insurance Act54; the blacksmith's wife died of phthisis pulmonalis three months later.55

MCNEILL'S LEGACY

Before, during, and after the Great War, McNeill continued to produce annual reports for the County Council and serve as Honorary Consultant Medical Officer to Argyll's Sanatorium. When McNeill died in 1924, the *Oban Times* captured his essence: 'Up to the last he was zealous and active in his appointed work... He was painstakingly accurate and conscientious in carrying out his public duties...He will be remembered as a pioneer and as an example to those who follow in his foot-steps.'⁵⁶ Roger McNeill was a pioneer in the study of public health and medical services for Scotland's crofters. He was a Resident Medical Officer in the Hebrides' first hospital⁵⁷, the first President of the

Caledonian Medical Society, and the first Medical Officer of Health for the County of Argyll. In a genuine understatement, the *British Medical Journal* merely remembers him among 'the group of men who... undertook the task of instituting a public health service in certain rural areas of Scotland which before that time had been practically without sanitation.'58.59

Roger McNeill did not live to see the progress made by the HIMS and its Board, and the impact his work had on public health: a resident nurse assisted the evacuation of faraway St Kilda; a consultant surgeon was appointed in Stornoway; a laboratory was built and specialists came to Inverness. Despite the Great Depression after the war, an air ambulance service from the Hebrides to Glasgow began in 1936. In 1937, the Cathcart Report proposed a 'national health service' for all of Scotland based upon the success of the Highlands and Islands scheme. An ultimate, and unintended, consequence spelled the end of the HIMS in 1948. Britain's post-war National Health Service owed much of its conception to Scotland's Highlands and Islands. Thankfully, 'the principle that health care is a basic human right, regardless of income, class, or geography, had been conceded in the Dewar Report.'49,38

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