

The Aberdeen Typhoid Outbreak 1964

A narrative

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Prologue

On Tuesday 19 May 1964, two university students, normally lodged at the City's University, were instead residing temporarily at Aberdeen Royal Infirmary, after they had complained of severe stomach pains and diarrhoea. But that evening, as their conditions worsened, they were transferred to the City Hospital. Doctors suspected this was no run-of-the-mill stomach upset. In fact, they were worried it might be typhoid.

They were not the first. That same day, the husband of a patient admitted three days earlier, and the family's two children, were also brought in with severe stomach complaints. A young boy from a completely different family was also admitted. Such was the concern that officials were despatched to visit the boy's home, where they found his mother and brother also ill. They too were quickly taken to the hospital. Still there were more. Four members of a five-member family, and another patient who had been ill for two days, had been admitted.

By this time, laboratory tests of samples from several of the patients confirmed the doctors' worst fears. They were suffering from typhoid. On the evening of Wednesday 20 May, therefore, 14 people were in, or on their way to hospital with typhoid fever, either confirmed or suspected. What was to become known as the Aberdeen typhoid outbreak was under way.

This narrative is drawn from contemporary reports in *The Times*, on the official inquiry report of the outbreak (The Milne Report), and to contemporary Hansard reports. The comments and analysis are my own.

The outbreak

Thirty years ago, control of infectious disease was the responsibility of local government. The work was done by public health departments, headed by Medical Officers of Health (MosH). In Aberdeen, the city public health department was headed by a certain Dr Ian MacQueen. Nothing of his personality is described in the contemporary records. Newspapers did not then go in for the personality cult, profiling leading figures in unfolding dramas. He remains, therefore, a two-dimensional figure.

Nevertheless, we do know that he was quick to respond to this outbreak of disease. He had actually learned of the university students, the day after they had been admitted to the City hospital and had immediately sent one of his assistant medical officers to interview them. Crucially, he wanted to discover the source of the illness - and this was to prove not at all difficult. Eleven of the twelve people already in hospital had eaten canned meat bought about ten days earlier from a supermarket close to the centre of the city, owned by William Low and Company. Even better, the five member family provided a vital clue. The four in hospital had all eaten corned beef. The fifth, a boy, did not like corned beef and had remained healthy.

With the source identified as a local shop, MacQueen's first thought was that one of the shop's employees might have been a typhoid carrier. Thus, on 21 May, he had examinations carried out on all the shop staff. He made no attempt to close the shop, although he had legal powers to do so.

The newspapers caught up with the outbreak on Friday 22 May, *The Times* announcing: "14 typhoid cases in Aberdeen". But there was no sense of crisis. MacQueen, issued a statement saying: "It is unlikely that anyone else will contract the disease", adding: "We feel we have identified the probable source, although it will take a day or two for laboratory tests to be completed". Nevertheless, the very next day, 23 May, *The Times* had: "More typhoid cases in Aberdeen". Seventeen cases had now been confirmed and another five were "suspect". But still there was no sense of crisis. MacQueen merely warned that the number of suspects might rise appreciably within the next few days "because doctors are likely to play safe with all patients suffering from upset stomachs".

Over the weekend, further evidence collected from sufferers confirmed corned beef as the most likely vehicle of infection. Furthermore, the strain of Typhoid had been identified. It was a type found in Spain and South America.

Nearly week after the university students had been taken to the city hospital, on Monday 25 May 1964, MacQueen was still exuding confidence, even though the number of cases had increased to 48. “We should be past the peak of the incubation period now and the first wave should come to an end in a day or so”, he had told *The Times*. By the Tuesday, though, confirmed cases had reached 74. The health authorities were appealing for former nurses to assist the city hospital.

On the 26th, MacQueen “disclosed” his suspicions about the food involved, taken up by *The Times* on 27 May as: “Typhoid caused by one tin of beef”. The “source of infection” was “...a 7lb tin of corned beef in a large shop in the city”. The slicing machine had also become contaminated and it had also been used for other meats. MacQueen emphasised that there were no carriers in the shop concerned and its hygiene had been good. “There was no negligence on the part of the shop whatsoever”, he said. By then, there had been 83 confirmed cases and nine suspects were in hospital but the authorities were confident the outbreak had peaked.

But it went on. By Thursday 28 May, cases had risen to 97, with 16 suspected. And news was emerging of other, earlier corned beef outbreaks. In Harlow the previous June, there had been 18 cases of typhoid, linked with corned beef, while an outbreak in Bedford during the autumn, where another 18 people had been affected, was similarly linked.

Back in Aberdeen, MacQueen’s concern was that the epidemic might slip its leash. So far, the cases recorded had been directly attributable to eating food from William Low and comprised the “first wave”. But, with typhoid, there was a grave danger of secondary cases as the disease was passed from person to person - the “second wave”. But, despite increasing numbers, the rate of increase was slowing, allowing MacQueen to claim that, while there was still “a pretty grave danger” from the outbreak, it was “satisfactory to know that the first wave was dwindling as expected, and so far there is no sign of a second wave”.

Despite MacQueen’s confidence, the next day, Friday 29 May, *The Times* recorded: “Aberdeen typhoid cases now at 102”. And there had been another 27 suspected cases. The pressure was on. Said MacQueen: “This is just the time that you begin to expect cases from another wave of the outbreak if it is coming. But neither I nor anybody else can say at the moment whether we have or have not got a second wave... We are treating cases around this time as if they were an new outbreak”.

Referring to “constant pressure” on him to name the shop where the infection originated, MacQueen said that would be “closing the door after the horse was

far away”. In an attempt to restore confidence, he added: “I have myself eaten food today from the shop first involved in the outbreak”. He would not say how many contacts of people infected had now been traced, but guessed it would be about 1,000.

The pressure did not abate. *The Times* brought the news on Saturday 30 May: “Typhoid total up to 136”. There were also 30 suspected cases and MacQueen ordered all schools in the city to be closed until further notice. A 78-bed hospital on the outskirts of Aberdeen had been evacuated to take victims. And the first death was reported - an elderly spinster who had also been suffering from two other “fairly serious complaints”. Speculation of the source of the corned beef was rife. MacQueen disclosed that it may have been part of a consignment imported 13 years previously from South America. A Ministry of Agriculture official confirmed that the ministry had a stockpile of corned beef. He could not disclose the source of the Aberdeen tin.

Up to now, *The Times* had played the story low key, with single column stories, mostly down page. These were the days when the paper still ran classified advertisements on its front page, and pictures were sparsely used, so the term “front page story” had little relevance. Page 12 seemed the natural home for the reports.

On Monday 1 June, though, the story “exploded” into double column format, occupying virtually the whole of the first two columns of page 10, bearing the headline: “Typhoid suspects in a submarine”, the strap reading: “Ratings taken to hospital”, leaving the sub-head to “Confirmed cases at Aberdeen now total 160”. Two ratings from the submarine *Roqual*, at Faslane, had been taken to hospital with suspected typhoid. A member of the crew of a ship in the Tyne was also under observation in a Newcastle hospital, having been on leave in Aberdeen, and in Manchester, two 6lb tins of corned beef had been found to be mouldy when opened at a school.

In Aberdeen itself, according to a second story, there was: “Hope of wave slowing down”. A note of “guarded optimism” had been struck by MacQueen, saying that “the second wave” was dying down, but he emphasised that the public must not relax in the fight against the disease. MacQueen said the first wave of cases had been caused by the contaminated corned beef in a city shop. Three of the staff of the shop had been infected. All the evidence pointed to one of these three individuals being responsible for the second wave through faulty hygiene. “In fairness to the local medical authorities”, the medical correspondent wrote, “it should be emphasised that the containment of an outbreak of typhoid can be extraordinarily difficult”.

That difficulty was well evident the next day, Tuesday 2 June, when the story again went to two columns, this time running the full length of the page.

“Typhoid cases up by 64: biggest rise so far”, proclaimed the headline, with the strap: “Fears of third wave at Aberdeen”, and the sub-heading: “Officer denies ‘any important errors’ by department”.

The total for the outbreak now stood at 241, with 224 cases proved and the other 17 suspected. MacQueen regarded the next 48 hours as critical. If the number of cases continued to rise up to Wednesday night, he thought that there was a risk of the outbreak entering a third wave. “If we are getting these figures purely from the second wave, the figures should be tailing off tomorrow”, he said. He felt that the best way to contain the outbreak was intensive personal hygiene, and “renewed appeals” to Aberdonians. Asked whether the closure of restaurants and public houses would help, he said it might be an advantage but that would disrupt the life of the city still further. “We have to keep a sense of proportion”, he said. “There is some limit to the precautions you can ask the public to take. After all, this is not the bubonic plague”.

From other sources, there had been some “implied criticisms” of MacQueen’s handling of the situation, which had been “published recently”. MacQueen took a robust stance, saying he was not claiming infallibility, and that there were many things on which he could be shot down. “I can perhaps be shot at for the general hygiene standards of the city before the outbreak. I can perhaps be shot at for not shouting sufficiently hard and long about staff shortages, but I must categorically and emphatically deny that during this outbreak this department has committed any important errors”, he said.

Meanwhile, wrote the “special correspondent” for *The Times*, “the citizens of Aberdeen are living a strange but not altogether unhappy life. It is, of course, nonsense to call this a city of fear. It is a sad city because it has always taken an intense pride in the air of cleanliness that comes from a mixture of sharp north-east wind and from the impermeable granite from which it is built. If there is fear about, it is the fear that Aberdeen will get a bad name.

The particular tragedy is that today should have been the beginning of the peak of the holiday season. The town is reasonably busy and bustling still - not the ghost city that some would have the rest of the nation believe - but what is missing is the usual crowd of Scots holidaymakers buying buckets and spades and straw hats and ice lollies and doing all the things that make anywhere beside the sea look cheerful”. “Life goes on”, said a senior citizen. “We are not locking ourselves in as though this is a revisitation of the Great Plague. But it is true that the gaiety is missing. We have become a sombre city”.

Over 500 miles south, the politicians were gathering for a statement in the Commons by Mr Michael Noble, the Secretary of State for Scotland. He, with the two other ministers concerned in the investigations - Mr Soames, Minister

of Agriculture, and Mr Barber, Minister of Health, had been meeting to make preparations. Mr Kenneth Robinson, the shadow Minister of Health, was to lead the opposition, with other Labour frontbenchers probably taking part in the questioning. Robinson was expected to ask if the Minister of Health was satisfied that inspection methods for corned beef were adequate.

Addressing the House on 2 June, Noble told assembled MPs that the number of patients in hospital stood at 249, of whom 241 were confirmed cases. The outbreak was the most serious since 1937. The first indications had appeared on 19th May, and the probable source of infection, in a supermarket in Aberdeen, had been traced on 20th May. "The speed with which the focal point of infection was established reflects great credit on the Medical Officer of Health of Aberdeen, Dr. MacQueen and his staff", the Minister said.¹

The release of corned beef from the government stockpile was also under scrutiny. One suggestion had been that "the risk can be related to the age of the corned beef. Government experts explained yesterday that this is a mistaken idea. The typhoid germ could not develop or mature because of the age of the meat: it would either be in the tin when it was sealed at the packing factory, or alternatively it would get in through mishandling when it was opened".

Wednesday 3 June had the report of the Commons statement, under the heading in *The Times*: "Independent inquiry on typhoid cause", the strap reading: "Minister says government stocks 'innocent'". The debate was low key, *The Times* observing, "Not for the first time, the trumpets which had heralded a fierce battle on the issue were proved false. The House was mildly critical of the government's delay in making a full statement, but nothing more. Noble discounted any suggestion that offending cans had come from government stocks.

Asked where they had come from, he "named no names" but said that two establishments, one of which had processed some 6lb cans found at the shop, had not been using chlorinated water to cool the tins. Scottish members were "doubtless relieved" by the information that the typhoid germs involved were not natives of Scotland. They had come apparently from Spain, South America or the Southern part of the United States.

Only Mr George Brown provoked some controversy, demanding to know how long it would be before all the suspect corned beef was withdrawn. The government benches seemed to think this was a cheap manoeuvre but Mr

¹ http://hansard.millbanksystems.com/commons/1964/jun/02/typhoid-outbreak-aberdeen#S5CV0695P0_19640602_HOC_210

Noble was undisturbed. “As quickly as we can”, he replied, and that was that. Mr Soames and Mr Barber, sitting anxiously at his elbow, were never needed.

Back in Aberdeen, thirty more cases had been announced, bringing the total to 271, while MacQueen had named two brands of corned beef - Fray Bentos and Helmet (an Armour product). The shop to which the source of infection had been traced had both brands in stock, he had said, and either might have been responsible. He reiterated that there “was not a shadow of doubt” that the outbreak had started from a tin of corned beef.

Mr R D Crook, company secretary of Liebig Extract and Meat Company Ltd, who through their subsidiary Oxo produced the Fray Bentos brand, criticised MacQueen. His company had not been referred to by the minister. It was quite wrong of a medical officer of health to have mentioned brand names unless he was absolutely certain of his facts. The Ministry of Health and the Scottish Home and Health Office, nevertheless, announced that 6lb tins of corned beef produced from two canning establishments in South America were being withdrawn. A joint statement said that “No small tins of corned beef of the size normally brought by householders are involved”.

A city under siege

Ripples of concern were spreading. In some areas, buyers were refusing fish supplies from the city and, in a crowded meeting, 100 local hoteliers and restaurateurs decided to ask Aberdeen Corporation to support them in an approach to the government for compensation for their losses because of the epidemic. Butlin holiday camps had asked all people from Aberdeen to cancel or postpone their holidays and, in Guernsey, the medical officer of health had asked hotels and boarding houses to postpone bookings from Aberdeen.

And the news was getting worse. On Thursday 4 June, *The Times* proclaimed: “Fear of third wave in typhoid epidemic”, with the strap: “More than 300 in hospital”. This “indicated” that there was a clear possibility of the outbreak “moving on to a serious stage of a third wave...”, “although it will be another 24 hours before this can be accurately assessed”.

MacQueen said there were now three possibilities. “First, that the increase over the past 24 hours was a final ‘upkick’ of the second wave; secondly, that a third and possibly successive waves were coming which might be even bigger than the first and second put together; and thirdly, that the increase was due to a combination of ‘upkick’ and localised family outbreaks caused by individuals who were not carrying out proper hygiene”.

On the epidemiology front, there had been “several further moves” which “may eventually provide a firm answer to the problem of where the original

infection emanated". It had been established that no direct supplies of 6lb cans of Fray Bentos corned beef had been supplied directly to the shop, and if any tins from its production establishments had been found, they must have been part of a consignment sold to the Ministry of Food in 1951 or 1953. But one of the consignments studied was marked Argentina Estab 1A, manufactured in a plant using unchlorinated cooling water.

Nevertheless, representatives of the importers of corned beef had told the Minister of Health that they remained "quite unconvinced" that corned beef was responsible for the outbreak.

MacQueen, on the other hand, had "expressed regret" that so few newspapers and broadcasting organisations had published the names of the firms whose labels had been found on tins in the shop. He said he had given considerable thought to the issue of these brand names because of the possible legal implications, but had taken his courage in both hands and announced them. "It seemed to me that while no-one wanted to incriminate an innocent firm - and one must obviously be innocent - it was in the public interest that the names should be published in connection with an outbreak which has put 300 people in hospital and may well cost this city £7 million", he said.

Showing no sign of strain after 15 days of what he called "toil, effort and sweat", MacQueen admitted that he had twice been momentarily driven to despair. Once had been when he had heard a person responsible for a school expressing a view that individual towels were an unnecessary expense, and the other when he had heard that a woman had bought a pre-cooked chicken in the city and had complained that it had been mouldy. He had constantly appealed to the public not to buy or eat pre-cooked food.

Nevertheless, there was bad news for Aberdonians. MacQueen advised that anyone contemplating going on holiday that weekend should cancel their arrangements. "It would be bad citizenship to do otherwise", he said. And the Scottish Herring Drifters' Association were advising their skippers not to land their catches in Aberdeen, while Unilever had closed down a food development plant after one of the process workers had been identified as a typhoid suspect.

Still the news got worse. *The Times* on Friday 5 June proclaimed: "Aberdeen in third wave of typhoid", the strap amplifying the bad news, with the legend: "Cases total 334: next three days crucial". This was the "day of destiny", and MacQueen was to the fore, as always, saying: "This is serious but not necessarily catastrophic". He added: "I am disappointed, but don't let's be too pessimistic. Some of my colleagues feel that perhaps I am placing the crucial day a little early. But certainly, today, tomorrow and the next day will be crucial. Everybody should now be shouting 'food hygiene and personal

hygiene' from the rooftops of Aberdeen”.

Some others, local critics, were “shouting” at MacQueen, for not calling in outside help, for not ordering mass inoculations, and for not being more ruthless in closing restaurants, public houses and so on. The doctor received some support from the visiting joint Under-secretary at the Scottish Office, a Mr J A Stodart, who toured the hospitals and allowed himself to be photographed three times washing his hands as part of the hygiene publicity campaign.

Meanwhile, as four cases of typhoid had been confirmed in Glasgow, Sir David Milne, a retired Permanent Under-secretary of State for Scotland, had been appointed chairman of the committee of inquiry into the cause of the outbreak. Some Labour MPs criticised his appointment, preferring the appointment of a man who had not been so closely associated with the government department “which may be under scrutiny”.

The crisis breaks

And then, the crisis broke. “New cases down to 17: ten confirmed”, *The Times* reported on Saturday 6 June, with the strap: “First hopeful news for Aberdeen”. But there was a slight cloud. A food handler working in the county area had been admitted to hospital, and the cases outside the city boundary had risen from nine confirmed and three suspect to 12 confirmed and seven suspect.

There was also anxiety over typhoid pockets scattered about other parts of Scotland. And Dr MacQueen admitted for the first time that he was feeling “rather tired”. One of his deputies was suffering from exhaustion and had had to stop work.

With that, *The Times* reported, “The health and hospital authorities here are anxious that the public should have a clearer idea of what is involved in becoming a typhoid victim”. The public still regarded typhoid as a highly painful “killer disease” and “some of that anxiety may be unnecessary”. Most of the patients in the Aberdeen hospitals had been physically ill only for about four days with symptoms of high temperature, headache, and a revulsion from food. Only a few had been seriously ill, possibly because they had delayed seeking medical advice.

The reporting had now returned to single column format. *The Times* on Monday 8 June had: “Extra typhoid injections for services”, and noted that there had been “18 more cases”. MacQueen was “not happy yet”. “There may well be more small outbreaks until our food hygiene is perfect”. Nevertheless, he appealed to “what is regarded here as the outside world” to

keep a sense of proportion.

But tucked into the article was the news that a government meat inspector had warned the Ministry of Agriculture three months previously that two establishments in South America had been using unchlorinated water in the manufacture of corned beef for export to Britain. Imports had been suspended but nothing could be done about the meat already in Britain because the Ministry had no powers to prevent its sale once it had entered the United Kingdom.

That day, the affair went political, and went back in double column format in *The Times* on Tuesday 9 June, under the heading: “Minister defends policy on corned beef”, with the strap: “Risk did not justify calling in suspect stocks”. Noble had admitted that, after the Harlow and the Bedford outbreaks, where corned beef had been implicated, an officer from the Ministry of Agriculture had gone to South America. He had informed the government in the middle of March that one establishment was not using chlorinated water.

Imports had indeed been stopped, but large stocks had been circulating in Britain for eight or nine months beforehand. These had not been withdrawn. “Why not?”, Mr George Brown, deputy leader of the opposition, had asked. Noble explained that the establishment concerned had had a chlorination plant which had broken down and had not been repaired.

But in the Bedford and Harlow outbreaks there had been an extra problem because the water supplying the cooling plant to the establishment involved in those incidents - a different one - was coming from an area in which there was a town which had a serious typhoid outbreak. There was no such information of any typhoid outbreak in the area of the other plant. Thus to withdraw vast quantities of food on what could only be the scantiest of evidence did not seem wise at the time. “In our view and the view of our medical officers, the risk was not such as to justify the withdrawal of all the meat”, Noble had said.

News of the outbreak was relegated to a down-page story, headed: “10 more people in hospital”. This was the lowest 24-hour increase since the outbreak assumed large-scale proportions. MacQueen called it “excellent news”. “This is in line with the trend we were hoping to see”, he said.

That did not stop a butcher’s shop in the city being closed on the orders of the health authorities, after a partner had been declared a typhoid suspect. £400-worth of meat was destroyed. A frozen fish factory was also closed down by its owners, although there were no known suspects or contacts amongst the staff. The firm said it had been done in the public interest. And about 45,000 copies of a booklet “How to stamp out typhoid” were being distributed as part of the hygiene campaign.

By Wednesday 10 June, the story in *The Times* was back in single column format, down-page again. This was enough to demonstrate the outbreak was on the wane, the headline: “Four new cases of typhoid” simply confirming the obvious. Unsurprisingly, MacQueen thought it “the best news we have had”. He did, however, appeal to Aberdeen citizens not to relax their hygiene precautions: there could still be scattered cases and they could lead to a third wave.

Aberdonians had other concerns. There was “mounting anger” at “further reports of what has become known as leper treatment”. The town council of Grantown-on-Spey, 50 miles away, had officially advised hotel keepers and restaurateurs to turn away Aberdonians and asked shopkeepers to refuse supplies of perishable goods from Aberdeen. This was causing “particular annoyance”. But the regime in Aberdeen itself had hardly relaxed. Another shop in Aberdeen, a fruit retailer, had been closed on the orders of the health department, after a shop assistant had become a typhoid suspect. The stock was to be destroyed.

That day saw a rise in the daily case rate, which had *The Times* on Thursday 11 June report: “15 more cases of typhoid”. The total now stood at 431, with 376 confirmed and 55 suspected. Aberdeen Trades Council, meanwhile, had expressed their support of MacQueen and his department, writing: “We believe, serious as the present position may be, it could have been much worse had it not been for the prompt action taken”, adding: “We hope your department will be able to win much greater support for the public in the matter of the proper handling of foodstuffs and also in the question of personal hygiene”. “Above all else” the Council concluded, “we hope that the central government will accept that there is need for much more stringent control of supplies of imported tinned foodstuffs”.

To add to the misery of Aberdonians, sailings by passenger vessels belonging to the Orkney and Shetland Shipping Company were to avoid Aberdeen, while hoteliers in Eastbourne had been asked to “suggest” that prospective visitors from Aberdeen should cancel or postpone their holidays in the resort.

But the worst was over, signalled by *The Times* headline on Friday 12 June: “Aberdeen outbreak tapering off”. There had been only eight more cases, bringing the grand total to 439, of which 387 had been confirmed, leaving 52 suspects. In a plea for restoration of confidence, the Lord Provost, Mr Norman Hogg, urged housewives to resume their normal shopping habits. He had been “deeply concerned” about the drop of trade in the city. “I feel that today should see the beginning of the fight back to restore the damage done to our city’s reputation through no fault of its own”. And the “holiday” was coming to an end for some of the schoolchildren, as pupils of the three senior

secondary schools were set to return to their classes.

It was Wednesday 17 June before Aberdeen next made an appearance in *The Times*, and then only with an announcement of: “Plans to restore Aberdeen prestige”. The Lord Provost’s committee had recommended a vote of an extra £15,000 towards publicising Aberdeen’s holiday attractions, on top of the annual budget of £20,000. Only one case had been reported the day previously, bringing the provisional total to 450.

The 17th, however, saw a mild alarm after reports that an Argentinean can of corned beef had been found infected with a food poisoning organism, as a result of sampling in the wake of the Aberdeen outbreak. *The Times* recorded this event on 18 June with the heading “New caution on corned beef”, and the strap: “Withdrawal call to shops”. But this was an aftershock. The paper reported June that the Aberdeen typhoid outbreak was now “contained”.

This was confirmed by MacQueen, reported in *The Times* on 19 June, who had given Aberdeen the formal “all clear”, just over four weeks after the crisis had started. All restrictions were to be removed, bar two: milk coming into Aberdeen would continue to be pasteurised and people were advised to avoid bathing in the sea for the rest of the summer, because of the possibility of sewage drifting on to the beach.

Aftermath

By coincidence, the committee of inquiry into the cause of the outbreak convened its first meeting. It was held in private, in London, and the secretary announced that it would come to Aberdeen as soon as possible for further meetings. These too would be in private. The 23rd June saw the last of the spate of publicity in *The Times*, with a short item, attached to a story about typhoid acquired in Italy. Aberdeen town council had rejected by 20 votes to seven a proposal to set up a relief fund for people affected. It was back to business, as normal.

It took until December - fast by contemporary standards - for the committee of inquiry to report, the result being a sparse, 74-page booklet headed “The Aberdeen Typhoid Outbreak 1964”, subtitled: “Report of the departmental committee of inquiry - Chairman Sir David Milne, G.C.B.”. The event was celebrated by a double column headline in *The Times* on 18 December, reading: “MOH ‘delayed closing suspect shop’”, with the strap: “Actions criticised in Aberdeen typhoid report”.

The Committee had found that the main reason the disease was not more widespread was the speed and efficiency with which MacQueen and his staff had traced the “source” of infection. But they were “of the opinion” that he

had been “in error” in not closing the suspect supermarket, which he had power to do immediately he believed that the corned beef sold there had caused the outbreak. The committee also “had the impression” that liaison between the MOH and the regional bacteriologist was “incomplete”. MacQueen was also criticised for over-estimating the communicability of the disease, exaggerating the number of people at risk and for the way the incident was handled in the press.

“A number of dramatic statements were made in order to encourage the citizens of Aberdeen to obey the edicts of hygiene practice which Dr MacQueen felt were essential”, the report said. “From the evidence we have received, it is arguable whether it was necessary to request the closure of schools, public places of entertainment and assembly... The result was to give the outbreak the status of a national disaster. The outbreak in itself was serious but in our view never attained this degree of gravity”.

The committee found that the most probable cause of the outbreak was a can of corned beef manufactured at Rosario, Argentina, in 1963 or early 1964 and sold at the Aberdeen supermarket between 7 and 9 May.

At the Rosario canning factory, the chlorination plant had been out of action for 15 months and early in March the Department of Health knew that there could be plenty of corned beef in Britain which had been processed under unsatisfactory conditions. “In view of the fact that there was at no pointer to any disease associated with meat from the plant, it was considered that the recall of stocks held in the country was not justified”. “There was no doubt”, the committee thought, “that this decision had proved in retrospect to be a mistaken one”.

MacQueen welcomed the report as a “satisfactory conclusion to our heavy and difficult task”, but disputed the report’s criticisms of his use of publicity during the outbreak. Michael Noble, who had been in office as Secretary of State for Scotland at the time of the outbreak, accused MacQueen of “throwing Scotland to the winds” in order to safeguard Aberdeen. “I think a number of his reported statements gave a picture of much greater alarm and despondency than was justified by the facts... Looking back on the events, I think I would have been wiser to have insisted that a medical officer from my department should have moved into the city”.

With this, *The Times* would have no truck. In its first and only editorial, headed: “Hindsight on Aberdeen”, it decided that MacQueen had emerged “as the hero” from the report. It noted that the report “was lenient with the Ministry”, over its failure to withdraw stocks, but “less lenient” with Dr MacQueen. Nevertheless, *The Times* decided, “Most people, if their own home town was smitten with this unpleasant disease, would opt for an MOH like Dr

MacQueen”.

With that, it was all over bar the shouting, of which there appeared to have been very little. Almost as a footnote, *The Times* reported on 22 December: “Aberdeen ‘apathy’ on health”. Mr B Edwards, principal of Aberdeen Commercial College, was complaining that retailers in Aberdeen were “doing nothing to improve hygiene”.

A course in food hygiene had been cancelled because of lack of support. Edwards observed: “I feel that too many people have taken the view that typhoid will never happen again in Aberdeen - so why should they worry?”. Hector Hughes, Labour MP for Aberdeen North, tabled a motion in the Commons, criticising the Milne report. His motion accused the committee of exceeding its terms of reference by “expressing opinions without evidence to support them” and had “unnecessarily and unjustifiably” attacked Dr MacQueen. He asked for the report to be withdrawn from circulation.

Reflecting on the tumultuous events of May-June 1964, it is clear that Dr McQueen did not know at the outset of “his” outbreak that there had been previously other typhoid outbreaks associated with canned meat. The Milne report, in fact, noted: “We think it fair to say that until the Aberdeen outbreak there was no association in the minds not only of the general public but of most doctors between typhoid fever and corned beef”.

It went on: “This is understandable when it is considered that, although there were three outbreaks of typhoid fever in England in 1963, it was not until 6 June 1964 that a detailed account of the outbreak in Harlow (May 1963) appeared in one of the medical journals. Yet in each of these outbreaks a probable connection with canned corned beef had been indicated by epidemiological inquiries”. In fact, the evidence for the connection had been so strong that the Ministry of Health had asked the UK distributors of the corned beef to withdraw stocks of 6lb cans associated with the outbreaks.

These 1963 outbreaks had occurred in Harlow, South Shields, and then in Bedford (in October). And not only had the only common factor been the consumption of corned beef, there was evidence to show that in some households, where one member either did not like or did not eat corned beef, that person escaped infection while the remainder of the household succumbed - a feature also noted in the early days of the Aberdeen outbreak. And all three outbreaks had been associated with one brand of corned beef which had been produced at a packing establishment in Argentina, at which unchlorinated river water had been used for cooling the cans of meat after sterilisation.

But there had been an earlier outbreak, in the North Yorkshire market town of

Pickering, in December 1954. Some 33 people had been affected and the only common factor had been that sufferers had eaten either tongue or ham purchased from the same grocery shop. Again in those households, some of the members who ate tongue had been ill, while the remainder escaped infection.

In one incident, a woman had ordered tongue but had decided it was too expensive and had bought ham instead. The ham was sliced by the same knife used for cutting the tongue. Most of the ham was consumed by one member of the woman's household, who developed the disease; the other two members of the household were unaffected. The can of tongue had been of South American origin, at a time when no canning establishment in the region had been using chlorinated water for cooling purposes.

Still earlier, there had been an outbreak in an orthopaedic hospital in Oswestry in 1948, resulting in 150 cases and seven deaths. Most of the victims were nursing and domestic staff at the hospital. Initially, milk had been implicated but, with the Aberdeen outbreak in mind, the outbreak had been re-examined, from which it had been concluded that the main staff meal for that day had been corned beef. The same meal had been supplied to night staff, the food being kept in the pantry until required, at a fairly warm temperature. It was noted that the infection amongst the night staff was proportionately heavier than among the day staff, thus suggesting that the night staff had received a heavier dose of the typhoid bacterium.

A not dissimilar phenomenon was noted amongst the first victims of the Aberdeen outbreak, who exhibited signs of gastro-enteritis not usually present in the first stages of typhoid fever, and indicative of a heavy dose of the infecting organism. Later cases displayed the more classic progression of the disease.

Relating this to the supermarket from which the meats had been sold, it was noted that, although it had been a clean, well-run establishment, corned beef was displayed, unrefrigerated, in a south-facing window area during the day. In the handling of this meat, there had been many opportunities for the spread of cross-contamination to other meats.

The inquiry committee concluded that the condition of the earlier patients was consistent with their having received a massive initial dose, consistent with their having eaten heavily contaminated meat. In the latter cases, the infection appeared to have been of lesser magnitude, consistent with their having eaten meat contaminated by handling or coming into contact with other infected meat but in which the opportunity for growth had not been as great.

Had all the information of the other outbreaks been available to MacQueen, he

would perhaps have been less inclined to seek out a carrier for his source of infection, and might have been more inclined to suspect the corned beef. Having identified corned beef, a simple calculation would have told him that a 6lb tin (erroneously identified as a 7lb tin initially) would have yielded about 120 slices and, with a typical portion of 2-3 slices, the number of people at direct risk from the corned beef would have been no more than 40-60.

As the outbreak progressed, with the knowledge of the pattern of illness, information about the shop and its handling procedures, and the previous reports of cross-contamination, he might have more readily appreciated that the extent of the outbreak could have stemmed from cross-contamination in the shop.

Given that the incubation period of typhoid ranges typically from one to three weeks, and the shop had first been visited on 20 May, he could have expected illness arising from foods sold by the shop to have continued well into June - which indeed it did. He need not have attributed the continuing illness to the second and third "waves", which he took to indicate that the disease had broken out into the community and was spreading person-to-person, independently of the original source, a factor which was to contribute much to crisis atmosphere of the time.

But if MacQueen could have benefited from more complete information, so too could the Department of Health which in March 1964 had been told of the production of corned beef from the Rosario establishment, using unchlorinated river water to cool the cans.

The rationale for its inaction - in recalling stocks distributed throughout the UK - had been that there had been no evidence of a typhoid outbreak in the vicinity of the plant at the time the corned beef had been produced, whereas, in the 1963 outbreaks, there had been an outbreak in the vicinity of the plant which had supplied the corned beef in these incidents. Knowledge of the Pickering and Oswestry outbreaks, and of eight other typhoid outbreaks between 1929 and 1949 involving canned meat, would have indicated that outbreaks local to production plants were not a necessary precondition for producing contaminated corned beef.

From the perspective of later years, though, what is most apparent about this outbreak - in contrast to the treatment of contemporary food safety crises - was the lack of critical media comment, although with only *The Times* as a contemporaneous source, it is difficult to get a complete feel of what was going on. For sure, during the outbreak, there seems to have been significant criticism of MacQueen, mainly because he did not immediately launch upon a mass immunisation programme (which would have been valueless because the vaccination does not confer any significant immunity until six weeks after

injection) and because he was not rigorous enough in closing down restaurants and pubs. etc.

After the event, however, comment seems to have died down rapidly, and the Department of Health seems to have escaped and serious criticism for its failure to act in circumstances where, had it done so, it was acknowledged that the Aberdeen typhoid outbreak would have been prevented. It is hard to believe that it would have been treated so kindly by contemporary media. Nor did the media at the time seem concerned that the DoH lacked powers to compel the withdrawal of food where there might have been a risk. The inquiry's recommendation that it should acquire such powers seems to have gone unheeded until 1990, when a new Food Safety Act was promulgated.

In fact, many of the lessons of Aberdeen seem to have gone unheeded. As the final contribution from *The Times* indicated, "apathy ruled". Food safety, as an issue, all but disappeared from the headlines and it was nearly ten years before it was to re-emerge.