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# Dealing with vaccine scares: learning from the MMR debacle

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*'Dr McCarthy [Cork Medical Officer of Health] had from the start of the epidemic been issuing statements which he presumably thought would reassure the population. It is easy to see why, like so many official statements at the time, they had the opposite effect.' (1)*

*'This constant drumbeat of bogus reassurance has exactly the opposite impact of the one intended, giving an impression not of confidence but of half-suppressed panic*.' (2)

Patrick Cockburn's recently published memoir of the Cork polio epidemic of 1956 - which left him with substantial disabilities - is a forceful reminder of the devastating impact of infectious disease within living memory. There were around 500 confirmed cases of polio in Ireland in 1956, leaving 20 dead and many more with life-long paralysis. Today the terror that was once inspired by polio has receded and parents are now more concerned about the risks arising from vaccines than the dangers of the diseases they protect against.

Cockburn's account is also a timely reminder that official reassurances offered by health authorities and politicians to a sceptical public may prove counterproductive. This is one of the lessons of the MMR-autism controversy which has spread from its origins in Britain in the mid-1990s around the English-speaking world. As Cockburn observes, 'belief that the authorities are lying their heads off about the number of dead and injured in any crisis is, in any case, not a uniquely Irish characteristic'.(3)

What other lessons can we learn from the MMR controversy, which continues to cast a shadow over the world of autism as well as deterring some parents from seeking immunisation for their children?

## The price of opportunism - and the value of instransigence

In the sphere of politics we can readily identify the greatest failure and the greatest success of the MMR crisis. The failure came in December 2001 when Tony Blair, the British prime minister, equivocated over whether his own son, Leo, then eligible for MMR, had received the jab. Given Cherie Blair's well-known proclivity for alternative medicine and her family links with autism, it was widely believed that she had opted against the triple jab. The consequences for the public reputation of MMR were little short of disastrous: if the prime minister doubted the safety of the vaccine for his own family, why should the public trust it? Pleas to respect the privacy of the prime minister's family seemed disingenuous: is not immunisation a matter of public health? It was striking that the fall in uptake of MMR was greater in the early 2000s after this blow to

popular confidence, than it had been in the late 1990s, after the original allegations against MMR.

The success came in early 2002: in the form of the refusal of the Department of Health to concede to mounting pressure, in parliament and the media - and, reputedly, from within the government itself - to introduce separate vaccines as an alternative to MMR. (4) It was widely reported that Sir Liam Donaldson, the chief medical officer, threatened to resign if the government acquiesced to the demand for separate vaccines. This stand was solidly based on the scientific foundations of the childhood immunisation programme. There was good evidence for the efficacy and safety of MMR and none whatever for the proposed alternative. It was also sound politics. Any concession to the demand for separate vaccines could only have undermined confidence in the triple jab, resulting in a further, and perhaps even wider, loss of confidence in the child immunisation programme. At this critical moment the intransigence of the immunisation authorities helped to bolster the confidence of health professionals, which had been battered by the persistent adverse publicity for MMR and its impact on parents.

At the level of government policy, the lesson of MMR is clear: whereas indecisive leadership increases public anxiety and confusion, a robust, scientifically-founded, stand in support for immunisation is likely to allay fears and sustain public confidence. The impact of the authorities' conciliatory response to allegations of a link between mercury-containing vaccines (a more potent scare in the USA than in Britain) provides a revealing counter-example. Though, as with MMR, exhaustive investigation failed to substantiate this link, vaccine authorities agreed to remove thiomersal from childhood vaccines on a precautionary basis. But this concession failed to reassure anti-mercury campaigners. (5) Indeed it only served to confirm their conviction that these vaccines had caused autism and a range of other developmental disorders and the campaign has continued. The moral of this story is that any concession to irrationality tends to reinforce rather than discourage it.

**A failure of leadership**

In an editorial in the *British Medical Journal* in March 2005, sociologist Paul Bellaby identified 'a failure of leadership by health professionals' as a key reason why the government appeared to have 'lost the battle over MMR'. (6)What went wrong?

In an interview with the *Sunday Times* in November 2004, following the exposure of Dr Wakefield in Brian Deer's Dispatches documentary on Channel 4, Tom MacDonald, professor of immunology at St Bartholomew's Hospital, described Dr Wakefield's patented treatment - revealed on the programme - for the condition of 'autistic enterocolitis (which he claimed might be linked to MMR), as 'total bollocks'. (7) Though this mode of expression was novel, in substance Professor MacDonald's dismissal of Dr Wakefield's work was not new. Nearly a decade earlier, in a letter to the *Lancet* in May 1995, in response to Dr Wakefield's paper suggesting a link between measles vaccination and inflammatory bowel disease, Professor MacDonald had ruthlessly exposed the methodological and scientific flaws in this and earlier research by the Royal Free group,

and categorically rejected Dr Wakefield's claims. (8) Five other letters in the same issue, including some from prominent authorities in the field, were similarly dismissive.

One of the most important factors in the evolution of the MMR controversy was the fact that it took nearly ten years for these negative judgements on Dr Wakefield's work, judgements shared virtually unanimously by his peers, to receive a forceful expression in the public realm. The result was the persistence of parallel, but largely non-communicating, universes. In the private world of medical science, authorities in the spheres of infectious disease and microbiology, paediatric gastroenterology and autism, were virtually unanimous in regarding the link between MMR and autism as a hypothesis that was both wildly implausible and entirely lacking in support from scientific evidence. Meanwhile, in the world of public opinion, there appeared to be a substantial scientific case in favour of the MMR-autism theory, one that derived legitimacy from the facts that it had been advanced by a team of researchers at a major London teaching hospital and published in a journal of international repute.

Whilst the scientists and doctors who dismissed the MMR-autism theory either remained silent or confined their discussions within medical circles, the campaign against MMR promoted its claims in the public realm with great panache. Advised by a leading PR company, Dr Wakefield skilfully briefed compliant journalists and politicians, and his campaign derived substantial support from solicitors pursuing legal-aided litigation, parent groups and proprietors of separate vaccine clinics. The result was an extraordinary divergence between the expert medical consensus that the MMR-autism theory was a non-starter and the perception among significant sections of the public that there were serious doubts about the safety of the triple vaccine.

The lesson that emerges from the failures of leadership by health professionals over MMR is that it is not enough to challenge junk science in exclusive medical conferences and in specialist journals (though that is an indispensable start in the process of challenging specious vaccine theories). When the child immunisation programme is threatened by a researcher who promotes his theories in the public realm before they have been substantiated to the satisfaction of the world of medical science, it is vital that these theories are challenged in public as well as in private. It is also important that the invidious character of these methods of evading scientific scrutiny is exposed and the potential dangers pointed out.

**Parents and doctors**

One of the great misfortunes of the MMR controversy is the convergence it has fostered between the outlook of some parents of autistic children and that of anti-vaccination campaigns, which previously enjoyed only marginal influence. This has been encouraged by Dr Wakefield, with his rhetoric of humility and deference to parents, and his ever closer links with the anti-immunisation zealots.

The wider culture of consumerism and anti-paternalism in the sphere of health has contributed to the impact of the campaign against MMR - both among parents concerned

about immunising their children and among parents of autistic children. Having put slogans about choice at the centre of its modernising programme in the NHS, the government in Britain was thrown on the defensive by demands for a choice of separate vaccines as an alternative to MMR. The Department of Health's promotion of the 'expert patient' programme, with the claim that patients with chronic diseases often know more about their conditions than their doctors, has also encouraged the view that patients - or their parents - should decide on matters of immunisation policy and on research priorities in autism.

The divorce between authority and expertise at the heart of the MMR controversy is damaging both for the immunisation programme and for parents. While vaccine uptake has fallen, parents, even those who have chosen MMR, have been thrown into anxiety and confusion. Extreme scepticism towards the medical establishment coexists with extraordinary credulity towards woefully misinformed anti-vaccination websites. The greatest burden falls on parents of children with autism, some of whom have been dragged into the ill-fated litigation, and many more who have begun to feel guilty that by giving their children MMR they contributed to their condition.

The lesson of the MMR debacle is that we need a new division of labour between parents and health professionals. (9) We need to establish the foundations of an informal contract that respects both our different spheres of expertise and - most importantly - the distinctions between them. Whether we are parents concerned about immunisation or parents of autistic children, doing the best for our children means concentrating on being parents and leaving science to the scientists, medicine to the doctors, education to the teachers. Populist anti-paternalism has become so influential that this now appears a hopelessly old-fashioned proposal. But it is both principled and pragmatic. The peculiarity of our current predicament is the selective withdrawal of trust from scientific and medical professionals, which is both unjustified and mutually damaging.

## REFERENCES


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