MMR scare fall-out 'inevitable'

Winning back the public's trust on the MMR jab is going to be an uphill struggle, mathematicians predict.

The statistician, from the University of Guelph, Canada, present their calculations in the Proceedings of the National Academy of Sciences.

MMR vaccination rates have been falling since a 1998 research paper claimed the vaccine was linked to the development of autism in some cases.

No link has ever been proved and most experts believe the vaccine is safe.

Some scientists have suggested the measles, mumps and rubella jab may be linked to autism and bowel disease.

However, no research has ever proved a link, and the overwhelming majority of experts believe the vaccine is safe.

The alleged association has been reviewed by the Committee on Safety of Medicines, the Joint Committee on Vaccination and Immunisation and the Medical Research Council.

"Even if perceived vaccine risk is greatly reduced, it will be relatively difficult to restore pre-scare vaccine coverage levels."

The study authors

All these found independently no evidence of a causal link between MMR and either Crohn's disease or autism.

Government ministers and public health experts have fought hard to regain parents' trust in MMR.

MMR coverage peaked at 92% in 1995 to 1996, but by 2001 to 2002, after the controversial medical paper by Dr Andrew Wakefield and colleagues was published, the figure had dropped to 84%, according
to official figures.

Mathematicians Chris Bauch and David Earn believe resistance to the MMR vaccine is likely to remain high.

They used "game theory", which attempts to predict individual decisions when the optimal strategy depends on the strategies adopted by others, to analyse what happened in the aftermath of a vaccine scare.

In the case of MMR, overall vaccination rate determines the risk of infection, which parents weigh against the perceived risk of allowing their children to have the jab.

**Uphill-struggle**

Combining the theory with epidemic modelling showed that a health scare was likely to have a stronger influence on whether or not to vaccinate than subsequent education campaigns.

They said: "In general, it will be relatively easy to induce a drop in vaccine uptake during a scare, but relatively difficult to restore uptake levels afterward."

The pointed out that the same trend was seen following a scare over the whooping cough vaccine in the 1970s and 1980s.

Vaccination rates dropped faster during the scare than the rate at which they increased after the scare was over.

"Even if perceived vaccine risk is greatly reduced, it will be relatively difficult to restore pre-scare vaccine coverage levels," they said.

A spokeswoman from the Department of Health said: "MMR remains the best form of protection against measles, mumps and rubella.

"Our overwhelming aim is for parents to have their children immunised with MMR, and for them to be confident that this is the right thing to do."