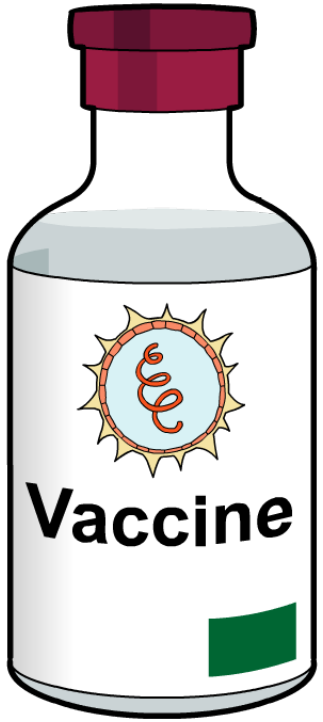
Vaccinations

What are vaccines?

Vaccines contain a small amount of dead or weakened pathogen particles.

A vaccine stimulates the production of antibodies and memory cells against the target pathogen, without making the person ill.



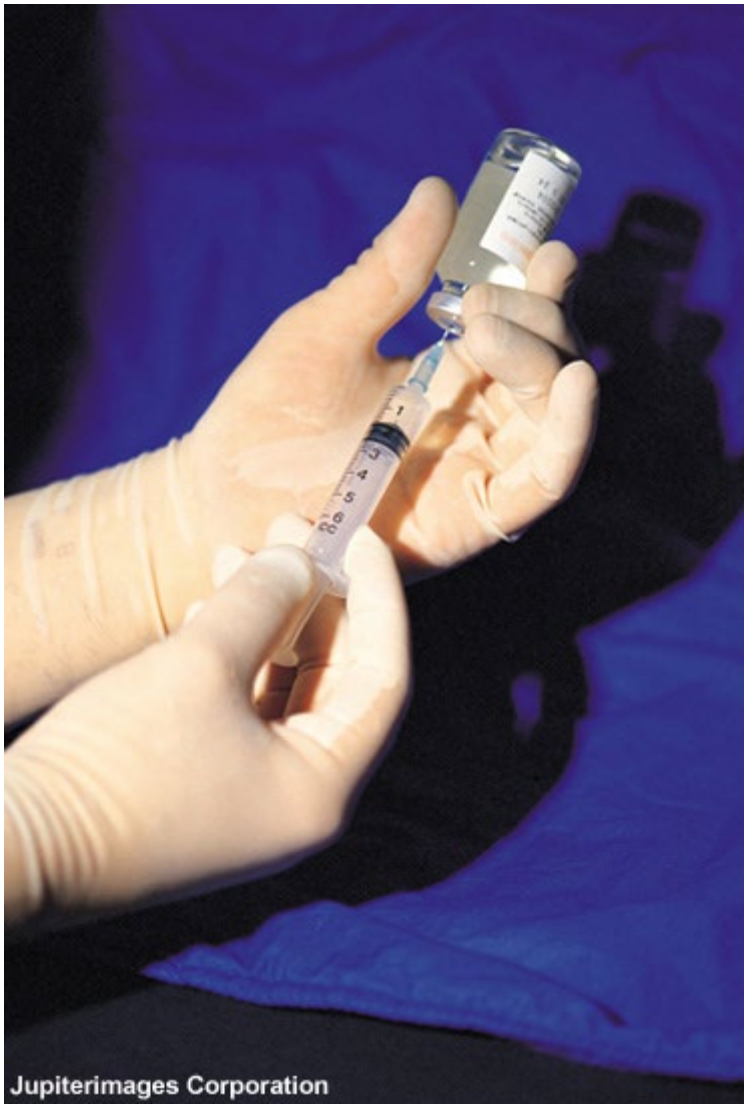
If a vaccinated person is later infected by the same pathogen, their immune system can destroy it very quickly.

Parents of young children are offered a combined measles, mumps and rubella (**MMR**) vaccine to protect their child.

Measles, mumps and rubella

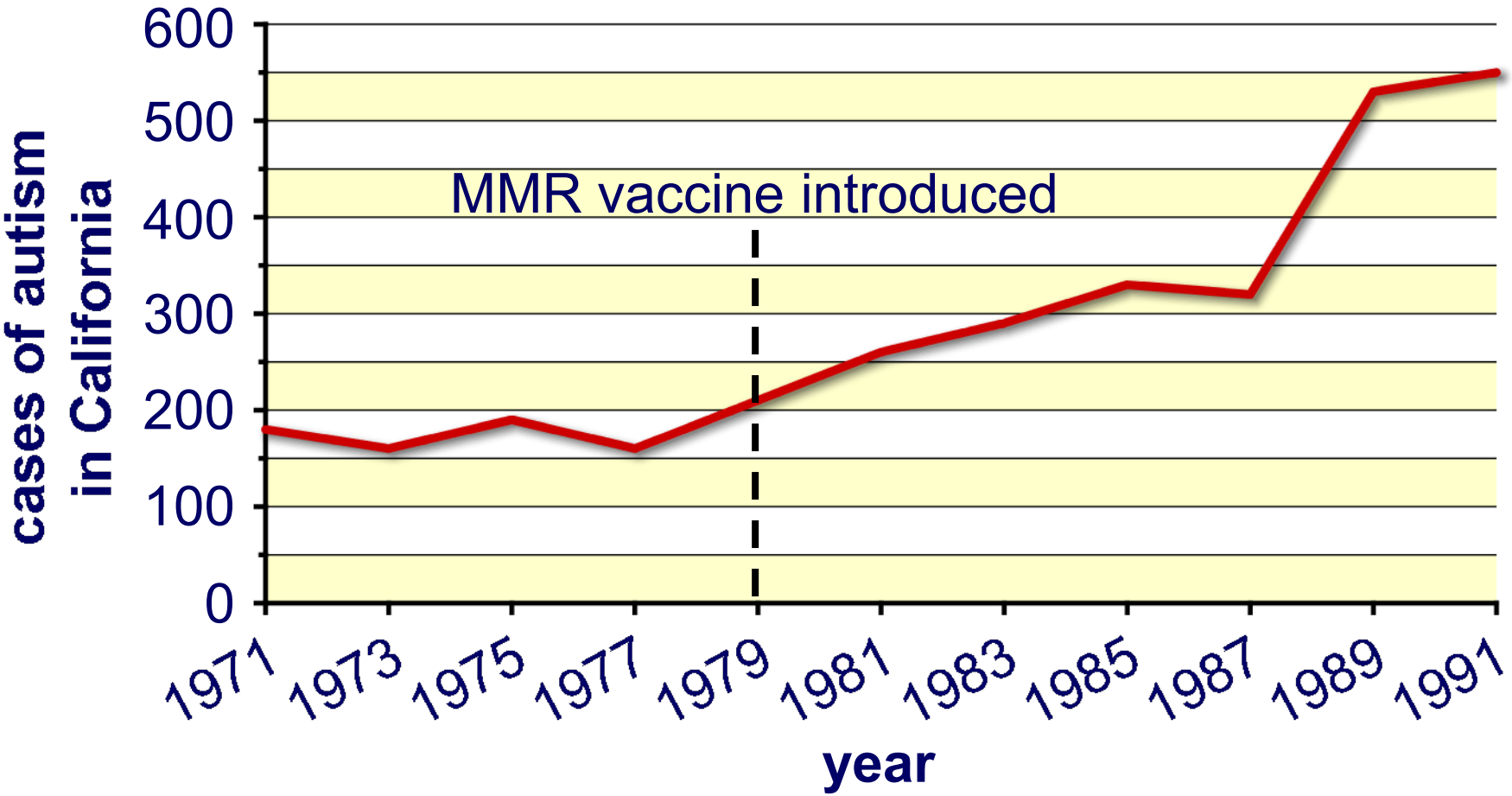
MMR vaccination rates in some countries have fallen recently following a media scare story.

The media reported on controversial research speculating that MMR could cause autism, a behavioural disorder causing learning and communication difficulties.



Controversial data

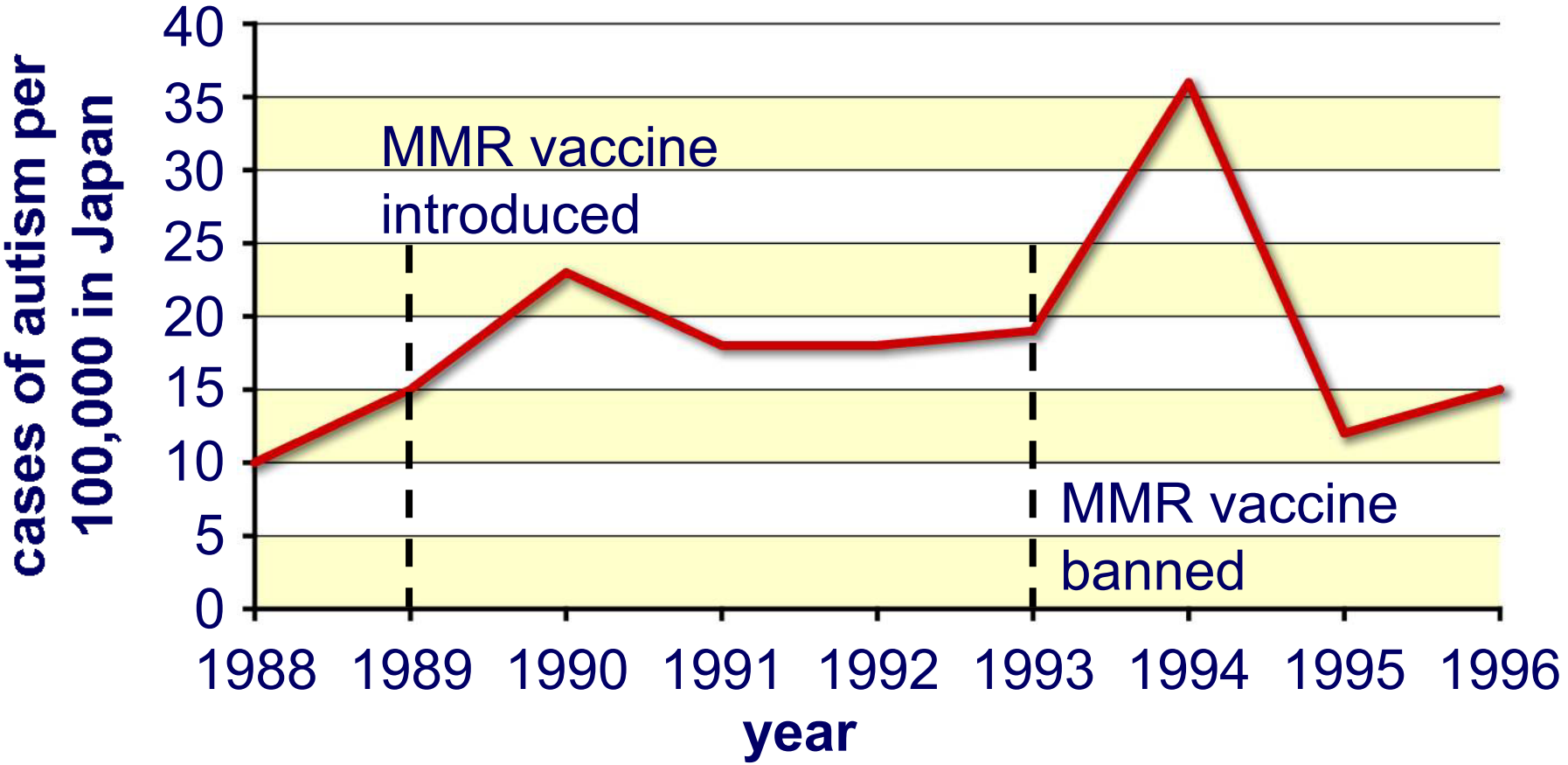
How was the research presented?



Would you worry if your child was due to be vaccinated?

More evidence

More detailed research carried out in Japan showed no link between the MMR vaccination and autism.



Why are the results different? Who is right?

Reassessing the evidence

Independent expert scientists re-examined the original research and found no evidence of a link between the MMR vaccine and autism.

The original research failed to account for population growth or the fact that autism has become better understood by doctors and is now diagnosed more frequently.

However, many parents still distrust the MMR shot, preferring that their children receive single vaccinations or even no vaccination.

If 95% of children had the MMR shot, the diseases could be wiped out. This is called **herd immunity**.

Benefits and risks of vaccination

What are the benefits and risks of vaccination?

advantages	disadvantages

small chance of harmful or permanent side effects

solve