

1. The greatest health advance for children in the 20th century was?

- A) sanitation
- B) antibiotics
- C) immunization
- D) oral rehydration
- E) safe anaesthesia

2. The most successful immunization programme ever was?

- A) polio
- B) BCG
- C) measles
- D) HiB
- E) diphtheria

3. The single most effective health intervention a GP can make for a child is:

- A) newborn screening (Guthrie)
- B) six week check
- C) encourage breastfeeding
- D) immunization
- E) preventing obesity

4. In the year I was born how many Irish children died of the combined effects of measles, diphtheria, and pertussis?

- A) 100
- B) 200
- C) 300
- D) 400
- E) 500

5. The average Irish child receives how many individual immunizations:

A) 14

B) 12

C) 10

D) 8

E) 6

6. The next vaccine added to the Irish schedule should be:

- A) hepatitis B
- B) pneumococcal vaccine
- C) rotavirus vaccine
- D) varicella vaccine
- E) RSV vaccine

7. Of the administered vaccines which is the most likely to cause a minor local reaction?

- A) diphtheria
- B) BCG
- C) pertussis
- D) HiB
- E) measles

8. Autism is caused by:

- A) mercury
- B) aluminium
- C) acellular pertussis
- D) measles vaccine
- E) none of the above

9. In the event of a serious vaccine associated adverse event the parents should:

- A) sue the doctor
- B) sue the HSE
- C) sue the company
- D) seek compensation
- E) speak to the media

10. In an effort to get immunization uptake over 90 per cent, the best approach is:

- A) more education
- B) more information
- C) subtle coercion
- D) legal compulsion
- E) better documentation / data

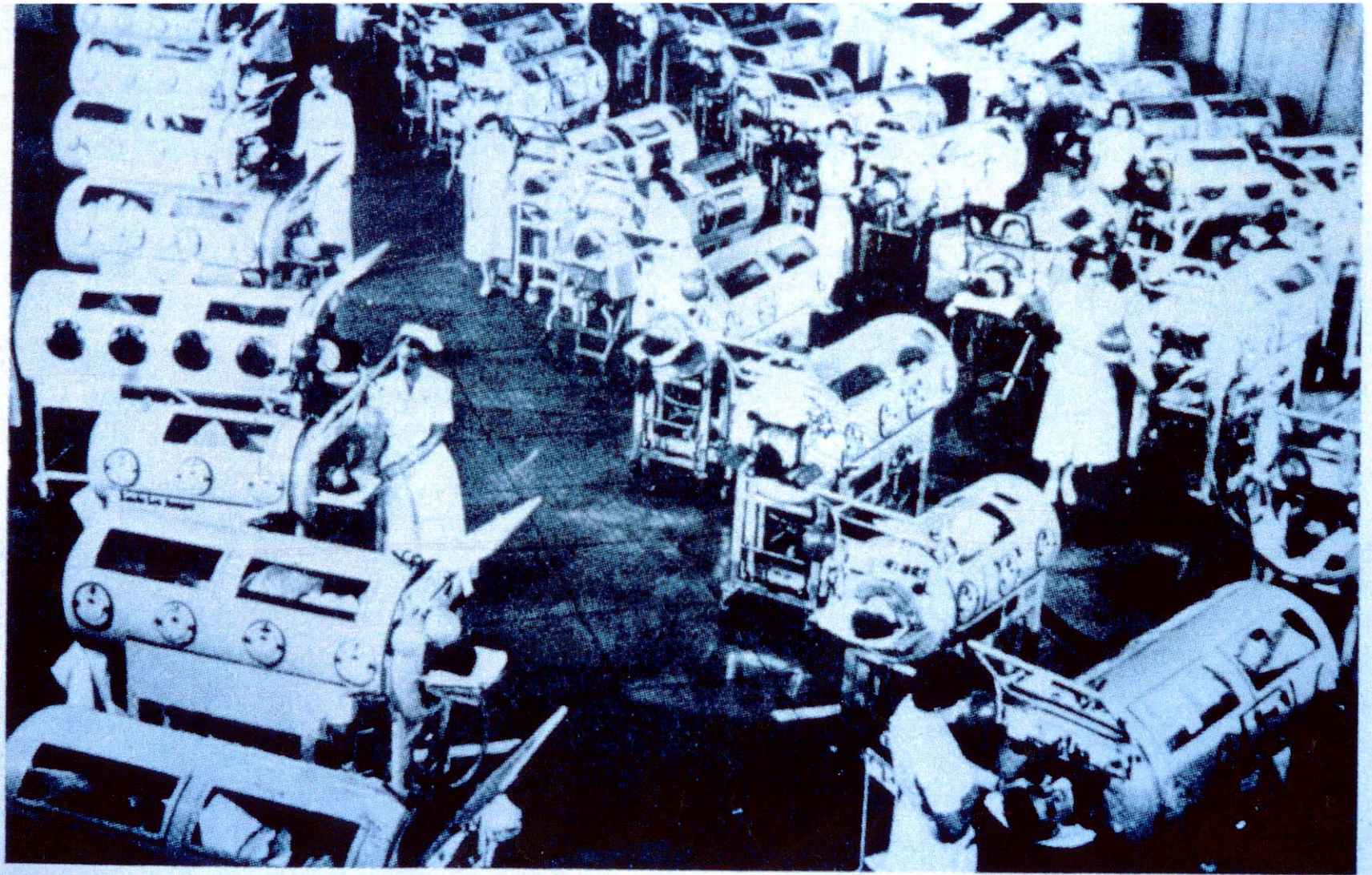
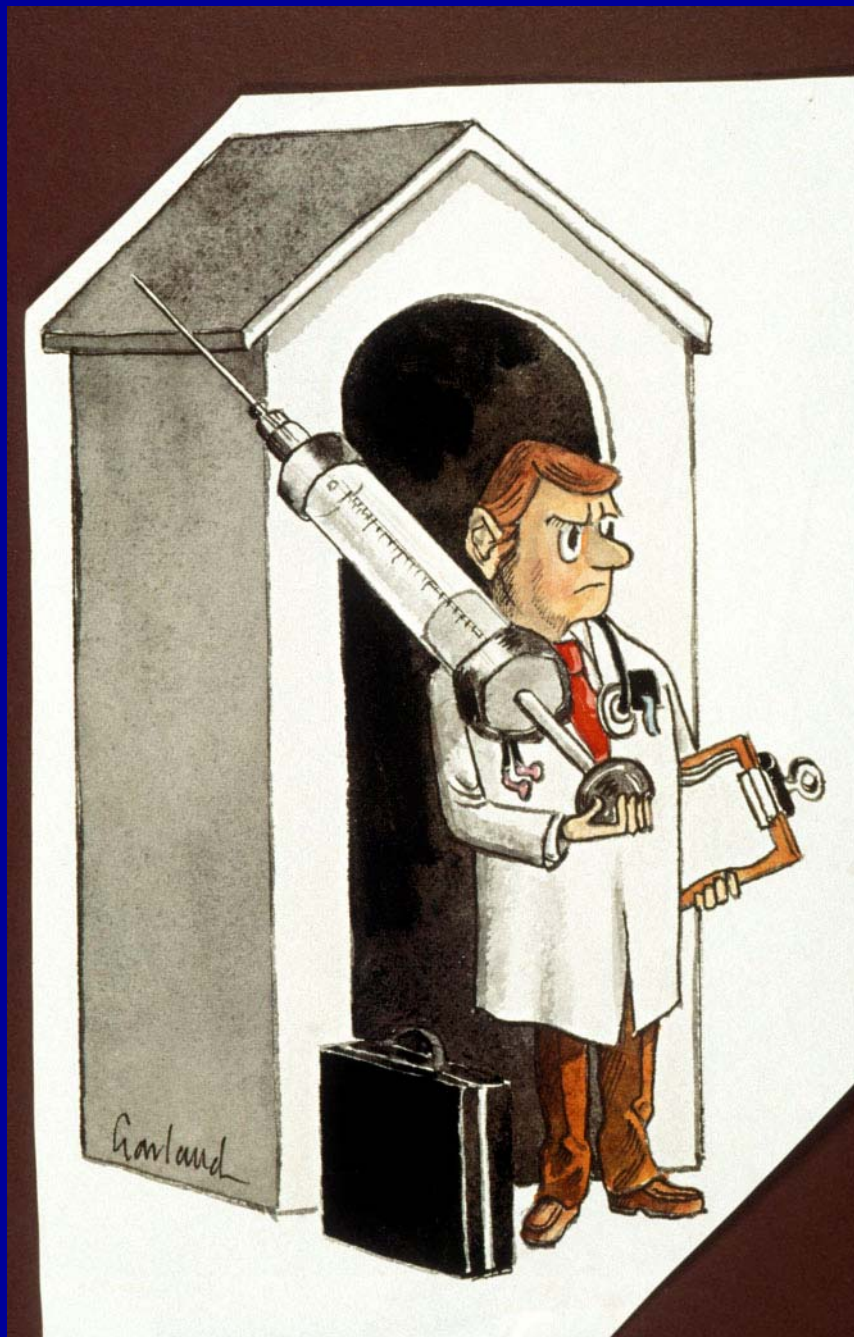


Figure 1.2 A ward of patients suffering from bulbar poliomyelitis

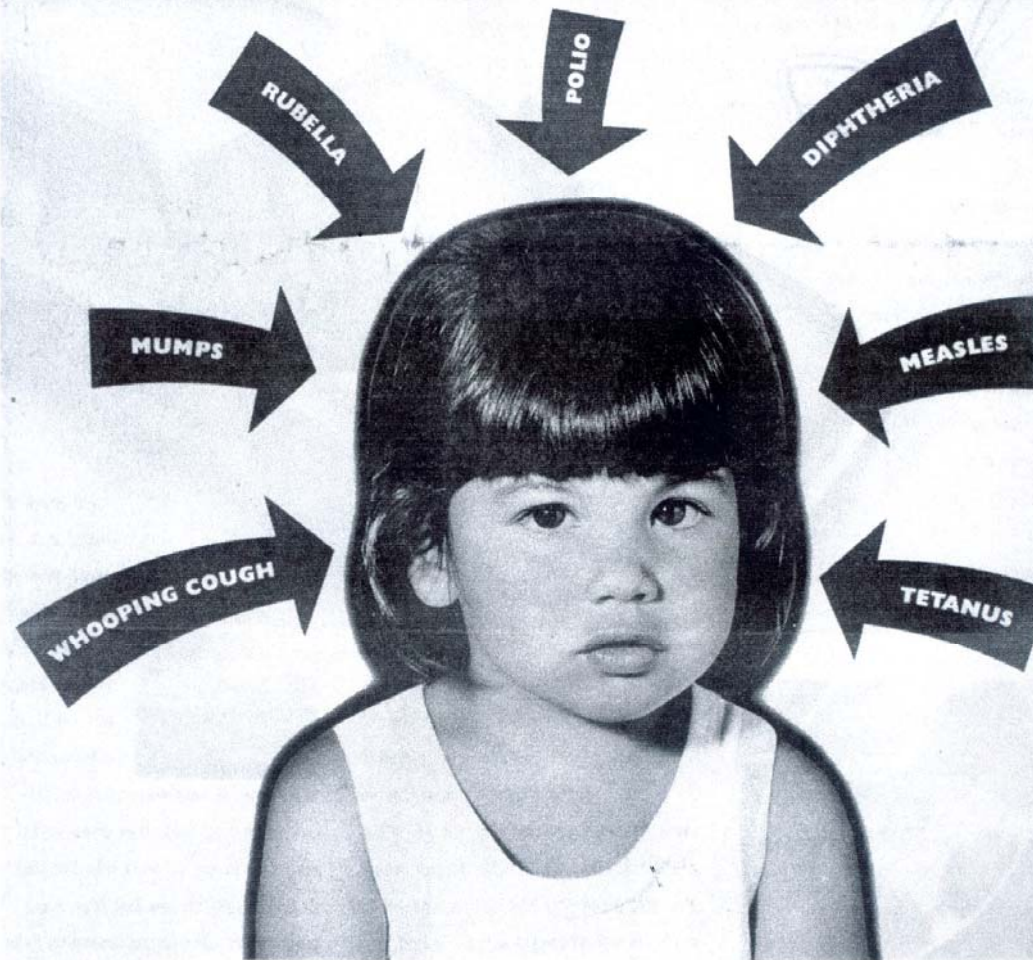
Why vaccinate our children
against all these diseases when
THEY'RE SO RARE!!

They weren't rare
when I was a boy -
vaccination has
MADE them rare!





**CHILDHOOD DISEASES HAVEN'T DIED.
CHILDREN HAVE.**





- MMR CRISIS -
MEASLES OUTBREAK



Asa Sier

VACCINATION OR VACILLATION?

- Consistent information
- Encouraging attitude
- Information – education – persuasion
- Balance sheet **very positive** in favour of vaccination.

Parents to-day are more concerned about alleged adverse

Effects of vaccinations than the conditions they protect against.

If a child gets a complication of measles, that's

THE WILL OF GOD

If a child gets a side-effects of MMR, that's

WHO WILL I SUE

VACCINE REACTIONS.

Malchance VS. Malpractice

VACCINATION REACTIONS : CONSIDERATIONS.

- A temporal relationship between 2 events does not imply cause and effect.
- Should we expect vaccine reactions to occur within 24 hours of administration?
- If one did *nothing* to a sample of 200 infants on any given day, what might happen to a few of them.

VACCINATION REACTIONS : PROBLEMS.

- Multicomponent vaccines 5 in 1, 6 in 1.
Deciding which component caused the reaction.
- Determining whether reaction due to vaccine or to coincidental illness.
- Achieving reasonable levels of proof that alleged reaction is due to the vaccine.

VACCINE REACTIONS.

MINOR

Expected

Local

Common

MAJOR

Unexpected

Generalized

Rare

VACCINE CONSTITUENTS → REACTION

- Bacterial antigen
- Aluminium
- Stabilizing agent
- Other diluent constituent
- Antibiotic (neomycin)
- mercury

IN HOSPITAL VACCINATION

- Anxious parents
- Anxious doctors
- Previous severe reaction
- Worry re “ anaphylaxis “

HOSPITAL VACCINATION CLINIC.

No reactions

No telephone calls

No recalls

No admissions

DAY WARD VACCINATION.

Therapeutic environment

Informed consent, reassurance

Nursing observations

**Crash trolley: adrenaline
 hydrocortisone**

Anaesthetic backup.

Anti-Vaccinationists.

- * concerns re safety and efficacy
- * mistrust of Government
- * “Naturalists” alternatives
- * conspiracy theorists
- * conscientious objectors
- * quacks and cranks

Arguments against immunization

- Homeopathy
- Religious beliefs
- “overloading immune system”
- Medical myths: mercury, aluminium, allergy, healthy children
- Fear of figmentary side effects:
autism, brain damage
- * Medical tyranny

- Children's diseases have not died because of:
 - Improved hygiene
 - Improved nutrition
 - Improved health
 - Improved economics
- These reduce but do not eradicate infectious diseases
- Infectious diseases return when children are not immunized.

Measles : lessons from history

- Has virus gone away?
- Is measles 2006 different from measles in Hippocratic times?
- Measles outbreaks Ireland, Germany, US, etc. 2000-2006

DISPEL VACCINATION MYTHS.

- No collusion between vaccine manufactures and doctors/nurses
- Nurses/doctors do not vaccinate just to make money
- AAP, RCPCH, RCPI, paediatric academies, WHO, UNICEF not involved in conspiracy to harm children.
- Bacteria + viruses have not disappeared.
Improved sanitation, nutrition, economics improve childrens' ability to fight illness but do not prevent measles, pertussis, polio, etc.

COMPULSION

COERCION

PERSUASION

EDUCATION

INFORMATION

Immunization uptake

- 100% = disease eradication
- 90-95% = disease elimination
- $> 80\%$ = disease control
- $< 70\%$ = outbreaks, mini-epidemics possible

KNOWN ATTRIBUTABLE RISKS OF CHILDHOOD VACCINES.

| Vaccine | Adverse events | Risks (per 100,00 doses) |
|---------|--------------------------|-----------------------------|
| DTaP | febrile seizures | 10 – 30 |
| MMR | febrile seizures | 33 |
| MMR | thrombocytopenia | 2.5 – 3.3. |
| DTP | acute encephalopathy | 0 – 1 |
| DTaP | hypotonic – unresponsive | 0 – 140 |

- Chen, Mootrey, De Stefano (cDc, USA)
Paediatric Drugs 2000

VACCINE ASSOCIATED EVENT REPORTING SYSTEM.

- Epidemiological evidence
 - Strength of association
 - Analytical bias
 - Dose – response
 - Statistical significance
 - Consistency
 - Biological plausibility
-
- = basis for assessing causality

IMMUNIZATION

Stay positive

- Keep the faith
- * Confront concerns
- * Take on the media
- * Keep on political agenda.

QUESTIONS.

- * Should **access** to safe and effective immunization be a stated right of children (in UN Charter)?
- * Should a **record** of immunization status be compulsory on entry to primary school.