# Public perception of immunisation. Communication equals coverage?

Prof. David Salisbury CB FRCP FRCPCH FFPH FAMSci



### New cancer vaccine will end routine smear tests

By Nigel Hawkes Health Editor

CERVICAL cancer, which kills 300,000 women a year around the world, could be largely prevented by a vaccine, researchers have found.

The first big study of a cervical cancer vaccine has proved 100 per cent successful — a "stunning result", according to one specialist. The results offer hope that women may be

'Cancer is not the automatic death sentence it was. The trend is one of incremental but extraordinary progress'

Leading article page 23

efficiency, even over a short time like two years, is a really good result."

Gardasil will be competing for a market potentially worth £2.2 billion a year with a rival product, Cervarix, from Glaxo SmithKline which has also shown excellent results in

The results come from a Phase III multinational trial, one of the final pieces of

3G

THE SUN, Friday, October 7, 2005 7

Miracle vaccine available next year

A REVOLUTIONARY vaccine could wipe out cervical cancer, bridge University, said: "These are stun-

By EMMA MORTON

It was revealed yesterday.

The new drug called Gardasil. Could save the lives of 300,000 women a year worldwide and 1,500 in Britain – and could mean an end to smear tests.

It works by blocking aexually-transmitted infections that lead to the disease. Eliav by blocking sexually-transmitted infections that lead to the disease. Eliav Barr, head of clinical development for the vaccine, declared. Others were given a single jab— and the results were almost as good, with the results were almost as good with the results were almost as g



Jab . . . could wipe out cancer

# $BMJ_{\rm \,helping\,\,doctors\,\,make\,\,better\,\,decisions}$

Seven in ten girls are likely to be vaccinated against the human papillomavirus (HPV) when a £100m national UK vaccination programme comes into effect in the autumn, according to a fast tracked study published on **bmj.com** today.

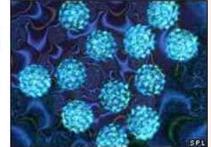
The Manchester-based pilot study is the first to look at whether the vaccine will be accepted by enough parents to ensure the success of a national UK immunisation programme, and how easy it is to deliver such a programme to adolescent girls.



### Many parents 'block cancer jab'

Nearly three in 10 parents failed to agree to their children receiving a new cervical cancer vaccine during a trial.

The jab, being rolled out in the UK this year, has proved controversial as it works by making girls immune to a sexually transmitted infection.



The vaccine works by making girls immune to strains of a STI

One in five parents did not return immune to strains or a STI consent forms, while 8% sent a refusal letter, although few cited fears about promoting promiscuity.

### Anti-cancer jab shunned

One in three girls refuses vaccine to guard against cervical virus



By **Jenny Hope** Medical Correspondent

the vaccine is ineffective against iour, while one in five gave no





# Girls expected to have cancer jab

Seven out of 10 girls could be vaccinated against the disease that causes cervical cancer, according to a pilot study looking at uptake. Girls



7 out of 10 girls would agree to sex cancer jab



# Telegraph.co.uk

### Parents 'refuse cancer jab for children'

By Kate Devlin, Medical Correspondent Last Updated: 12:19AM BST 25/04/2008

One in three parents could refuse to allow their teenage daughters to receive a new cervical cancer jab amid fears about its long-term safety, a study suggests today.

### guardian.co.uk

News Society Health

1 in 5 parents refuse daughters' cervical cancer jab

News Site of the Year | The 2008 Newspaper Awards

### Parents support sex-virus vaccine

Parents of seven out of ten girls are likely to back an offer of protection against the virus that causes cervical <u>cancer</u>, a

### Understanding risk – numeracy.



### 'Third of UK postcodes' have slow broadband speeds

A third of homes in the UK have broadband speeds well below the national average, according to research from price comparison site uSwitch.





# The role of the media in reporting on vaccination issues.

- Vaccination affects huge numbers of 'readers' or 'viewers'.
- It is 'political' since it is recommended by Governments.
- It plays victims against the establishment, and experts against experts.
- The science element gives it an aura of mystique.
- Communicable diseases are no longer feared vaccines are now.



### MailOnline

Home U.K. Home News Sport U.S. Showbiz Femail Health Science&Tech Money

Debate P

News Home | World news | Headlines | Pictures | Most read | News Board



### Scientists fear MMR link to autism

By SALLY BECK, Mail on Sunday

Comments (0) Add to My Stories

New American research shows that there could be a link between the controversial MMR triple vaccine and autism and bowel disease in children.

The study appears to confirm the findings of British doctor Andrew Wakefield, who caused a storm in 1998 by suggesting a possible link.

Now a team from the Wake Forest University School of Medicine in North Carolina are examining 275 children with regressive autism and bowel disease - and of the 82 tested so far, 70 prove positive for the measles virus.

Last night the team's leader, Dr Stephen Walker, said: 'Of the handful of results we have in so far, all are vaccine strain and none are wild measles.

This research proves that in the gastrointestinal tract of a number of children who have been diagnosed with regressive autism, there is evidence of measles virus.

What it means is that the study done earlier by Dr Wakefield and published in 1998 is correct. That study didn't draw any conclusions about specifically what it means to find measles virus in the gut, but the implication is it may be coming from the MMR vaccine. If that's the case, and this live virus is residing in the gastrointestinal tract of some children, and then they have GI inflammation and other problems, it may be related to the MMR."



### **FEMAIL**

Law & Ord Angle Harmi her bikini bo holiday in Pu Actress, 38, 6 spot of sunsh two daughter

Romantic getaways are a 75-year tradition here.

Learn More



### I Speak of Dreams

Passions: Effective parenting and education, learning disabilities, non-profit management, horses, and fun!



Email Me

Buy Your Copy Now!

#### About

Conflict of Interest Statement, Vaccines and Pharmaceuticals

Add me to your TypePad People list

Rights and Stats

Who Links Here

« The quest for the best microwaveable multigrain hot cereal | Main | Shoah 2011 »

Wednesday, January 26, 2011

The Daily Mail (UK) continuing sorry contribution to fear, uncertainty, doubt, and vaccine fears

The article that won't die: Sally Beck's "Scientists fear MMR link to autism," published in the Daily Mail on May 28, 2006.

That's right, 2006.

It gets worse. Two of the complainants in the Omnibus Autism Proceeding, the Cedillos and Hazelhursts, relied upon the unpublished Walker et al. research. Both the Special Masters in the hearings, and the presiding judge in the following Hazelhurst appeal, dismissed the evidentiary value of the Walker et al. study (exerpts from the hearings and the appeal are below). In other words, the Walker data have been examined and found unconvincing, because it was scientifically suspect.

The Walker study (never published) in no way validates Wakefield's fraud. The MMR vaccine still does not cause autism.

Link to the Daily Mail article. <a href="http://www.dailymail.co.uk/news/article-388051/Scientists-fear-MMR-link-autism.html">http://www.dailymail.co.uk/news/article-388051/Scientists-fear-MMR-link-autism.html</a>

Thanks to the Daily Mail's perverse habit of not date-stamping articles and scrubbing comments, plus having a date-stamp above the header, a casual reader may not realize that the article is 4 and a half years old.



### Wake Forest Researcher Warns Against Making Connection Between Presence of Measles Virus and Autism 6/1/2006

WINSTON-SALEM, N.C. – An American scientist whose research replicates a connection published in England in 2002 between the measles virus and bowel disease in autistic children strongly warns against making the "leap" to suggesting that the measles vaccine might actually cause autism.

"That is not what our research is showing," said Stephen J. Walker, Ph.D., an assistant professor of physiology and pharmacology at Wake Forest University Baptist Medical



# The new media environment - Characteristics of vaccine reporting.

- Reference to 'Scientists ...' to establish credibility of rogue views.
- Lack of detail of appropriateness of expertise of 'scientists' e.g. Dr Vera Schreibner, 'author of 100s of papers on vaccines', has a degree in micropalaentology.
- Reporting of findings as scientific truths, without acknowledgement of doubt.
- Failure to report negative findings that deny earlier false claims.
- Earlier unsubstantiated claims become reported as if accepted truth.
- Opinions of unqualified individuals with a mission are given equal or more prominence than relevant authorities.
- ALL OF THESE ARE STANDARD PROCEDURE FOR ANTI-VACCINE GROUPS.



### Kicking against the pricks: vaccine sceptics have a different social orientation

<u>Jeroen Luyten1,2</u>, <u>Pieter Desmet3</u>, <u>Veronica Dorgali4,5</u>, <u>Niel Hens1,6</u> and <u>Philippe Beutels1,7</u> <u>http://eurpub.oxfordjournals.org/content/24/2/310.abstract</u>

In any country, part of the population is sceptical about the utility of vaccination. To develop successful vaccination programmes, it is important to study and understand the defining characteristics of vaccine sceptics. Research till now mainly focused either on the underlying motives of vaccine refusal, or on socio-demographic differences between vaccine sceptics and non-sceptics. It remained till now unexplored whether both groups differ in terms of basic psychological dispositions.

**Methods**: We held a population survey in a representative sample of the population in Flanders, Belgium (N = 1050), in which we investigated whether respondents' attitude to vaccination was associated with their basic disposition toward other community members or society in general, as measured by the Triandis and Gelfand social orientation scale.

**Results**: We found that sceptics and non-sceptics have a different social orientation, even when several variables are controlled for. More specifically, vaccine sceptics scored significantly lower on both horizontal individualism and horizontal collectivism, indicating a lower disposition to see others as equals.

**Conclusion**: These findings need confirmation in the context of different countries. Such insights can be valuable to optimize the design of effective communication strategies on vaccination programmes.



'Imagine this scenario: you're covering a story on circumnavigating the globe so you interview a geographer to get their views, but for the sake of balance you also get a representative from the Flat Earth Society. Seems absurd right? Sure. But as a scientist, I see this kind of ridiculous "balance" happening all the time in stories concerning science and medicine. And it's not just bad because it insults my delicate scientifical sensibilities, research now tells us that it can actually be harmful'.

'Let's look at vaccination as an example. Assume that 99% of experts support the view that childhood vaccinations are overwhelmingly safe and effective, whilst 1% do not. Why then would the mainstream media run stories where a doctor or scientist offers a qualified, considered, researched, opinion and then turn to a wing nut who's spent a couple of hours on Dr Google and has decided vaccines are bad, m'kay?

'There's a term to describe giving more time to opposing view points than the evidence actually supports – false balance'.







"With vaccination, there is not debate. The science is in and the benefits far outweigh the risks". Photograph: Valentin Flauraud/Reuters

'Whilst no one gets hurt if you ask a flying carpet salesman questions about commercial flight, the consequences of people not vaccinating are real and potentially tragic. With vaccination, there is not debate. The science is in and the benefits far outweigh the risks. No balance required'.



### theguardian

News | Sport | Comment | Culture | Business | Money | Life & style

Comment is free

### Anti-vaccination activists should not be given a say in the media

99% of experts support the view that childhood vaccinations are safe and effective, whilst 1% do not. Why, then, would the mainstream media give any kind of air time to science deniers?

Vaccination of children in Australia: interactive map



Rachael Dunlop
theguardian.com, Wednesday 16 October 2013 03.14 BST

Jump to comments (684)

'There's evidence and then there's bulldust. It's a journalists job to distinguish between them, not to sit on the fence and bleat balance, especially when people's health is at risk.



The effect of falsely balanced reporting of the autism-vaccine controversy on vaccine safety perceptions and behavioral intentions.

<u>Dixon G</u>, <u>Clarke C.Health Educ Res.</u> 2013 Apr;28(2):352-9. doi: 10.1093/her/cys110. Epub 2012 Nov 27.

- ......we randomly assigned 320 undergraduate participants to read a news article presenting either claims both for/against an autism-vaccine link, link claims only, no-link claims only or nonhealth-related information.
- Participants who read the balanced article were less certain that vaccines are safe, more likely to believe that experts were less certain that vaccines are safe, and less likely to have their future children vaccinated.
- Results suggest that balancing conflicting views of the autism-vaccine controversy may lead readers to erroneously infer the state of expert knowledge regarding vaccine safety, and negatively impact vaccine intentions.



### The 'new' media environment in the UK.

"Journalists aren't employed to keep you healthy, or even informed: it is our job to sell readers to advertisers, to entertain you, and experience has taught us that we can do this very effectively with scare stories". (Ben Goldacre, The Guardian 16 Sept 2003)

"Health scares such as this protect no one, whatever the sanctimonious claims of the zealots behind them. The MMR panic is more likely to cause deaths from measles than it is to save a single child from autism. (*Mark Henderson, The Times 20 Sept 2003*)".



# The public perspective – UK communication research.

- Once or twice a year, a market research company interviews 1,500 mothers of children <4yrs.
- We now have 33 waves of tracking research.
- The sample is geographically representative and reflects all population groups.
- Sampling can be adapted for instance to uprate representation from ethnic groups.
- Core questions can be adapted to reflect new concerns.
- Cost is around £85,000 per wave.
- The information is used to inform our communication strategy.

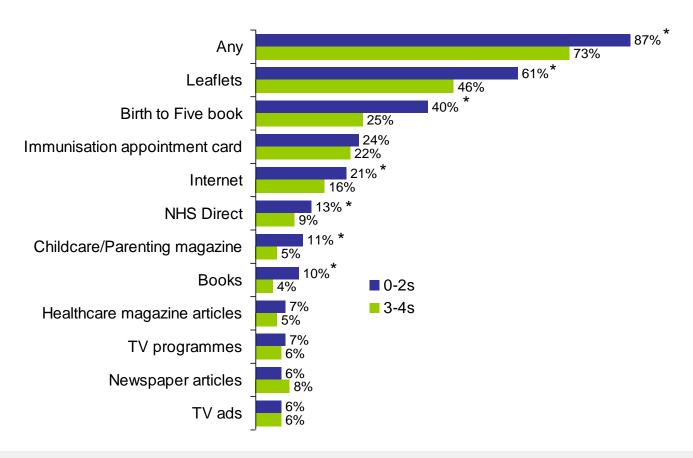


### What have parents told us?

- \* They want us to be clear.
- \* They want us to be consistent.
- \* They want us to give them the facts.
- \* They want us to be open.
- \* They want to access the information/resources available
- \* They want an evidence based approach and want to be able to find the evidence.



# Sources used for information about immunisations for 0-2s & 3-4s (prompted)

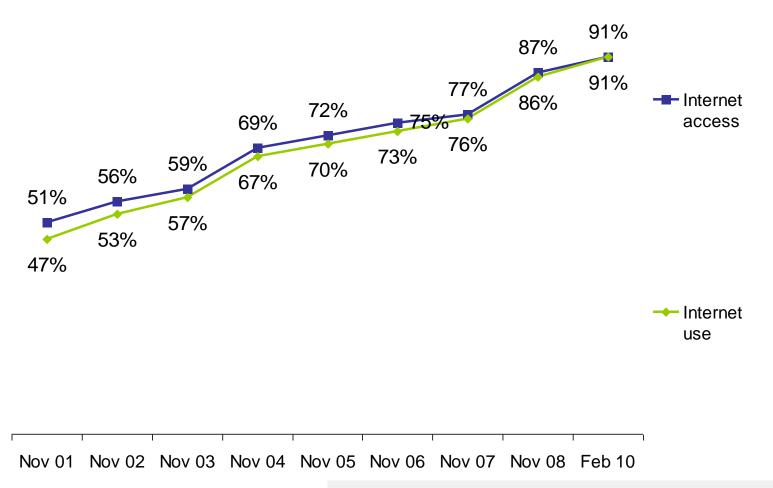


Base: 2010 - parents of 0-2s (1142), parents of 3-4s (1007)

Based on all respondents



### Internet access and use, 2011 survey

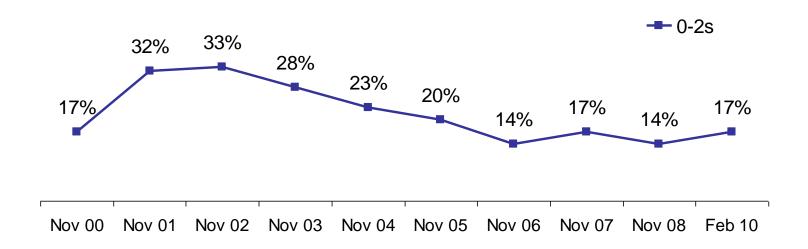


Base: Parents of 0-2s - 2010 (1142), previous years c.1000

Based on all respondents

### Whether seen anything that might persuade them not to immunise

### % Seen anything

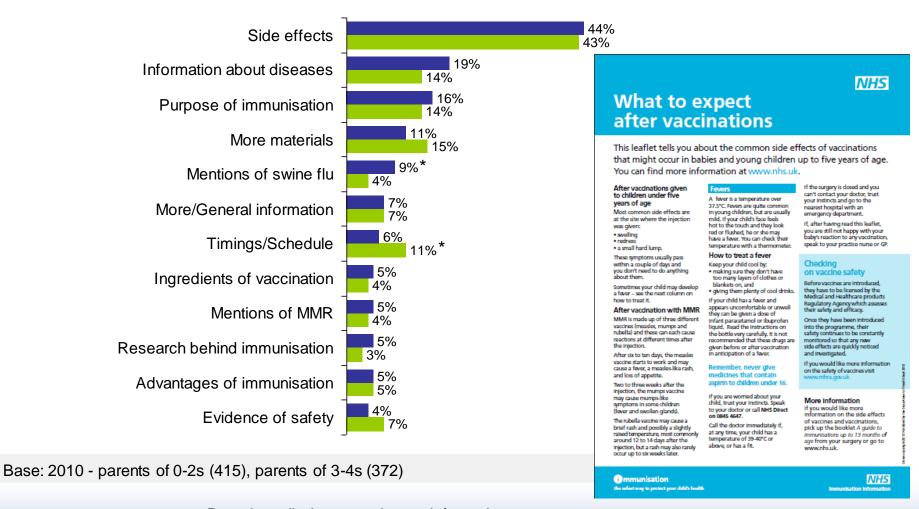


Base: Parents of 0-2s - 2010 (835), previous years c.800

Based on all who recall seeing/hearing publicity



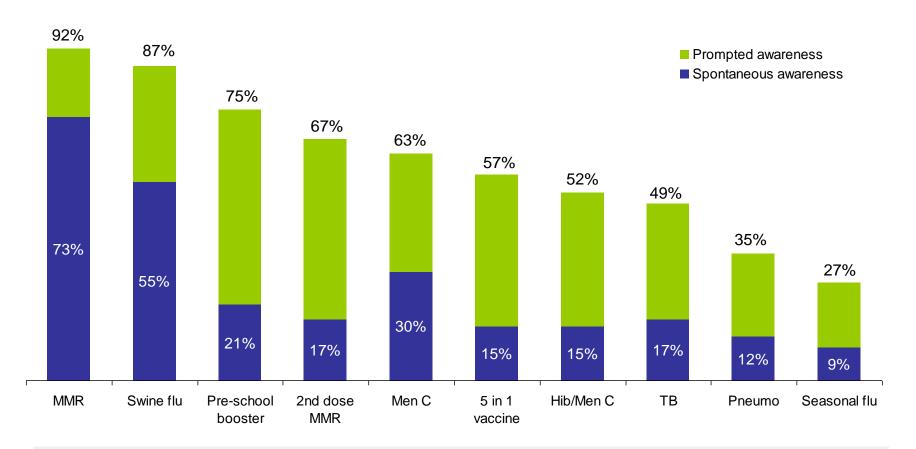
# What information would have liked about immunisations for 0-2/3-4 year old (spontaneous)



Based on all who wanted more information



### **Awareness of immunisations**



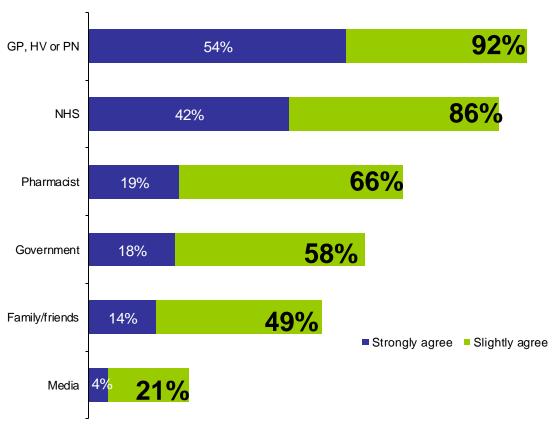
Base: 2010 - parents of 0-4s (1730)

Based on all respondents



### Trust advice on immunisation given by...

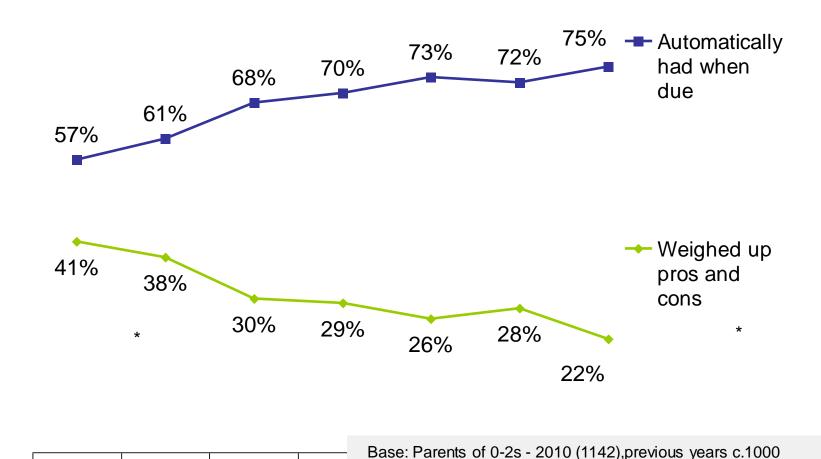
Health professionals and the NHS remain the most trusted sources of advice on immunisation. Parents recognise that family and friends may not give them the most accurate information.





Base: 2010 - parents of 0-4s (1730)

### Whether automatically had 0-2/3-4 immunised or weighed up the pros and cons



Nov-03 Nov-04 Nov-05 Nov-06 Nov-07 Nov-08 Feb-10



### TV ad for the launch of Hib vaccine – 1992; MenC campaign - 1999.





Unknown disease – raise awareness.

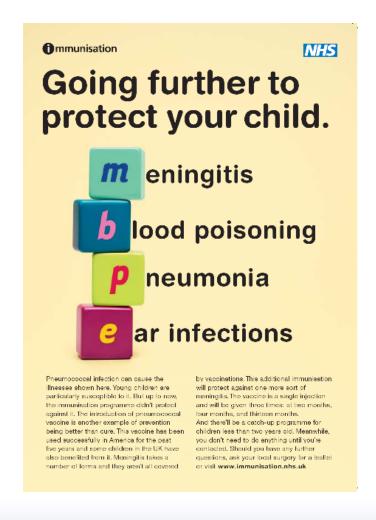
Greatly feared disease

- manage

expectations.



### Awareness of the pneumococcal campaign





# Main message taken from pneumococcal campaign (unprompted).

Get your child vaccinated/immunised

33%

Mention of a new immunisation/vaccine

19%

Protection against/prevention of diseases

10%

Wait to be contacted

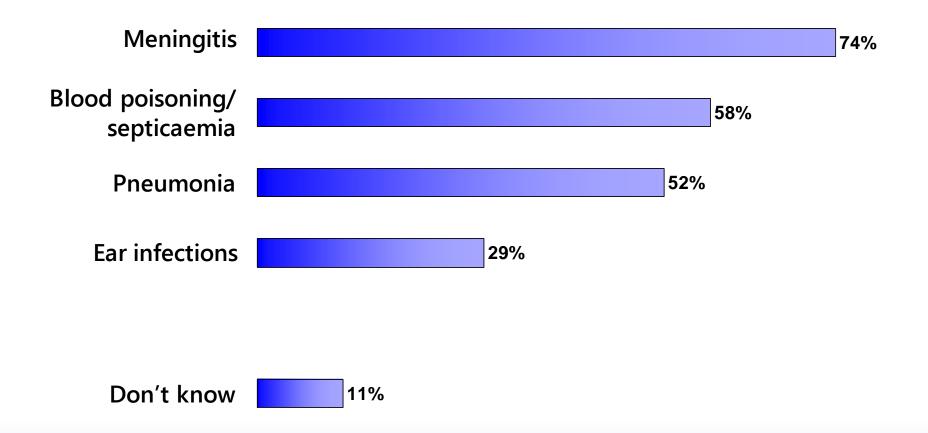
9%

Available for children under 2



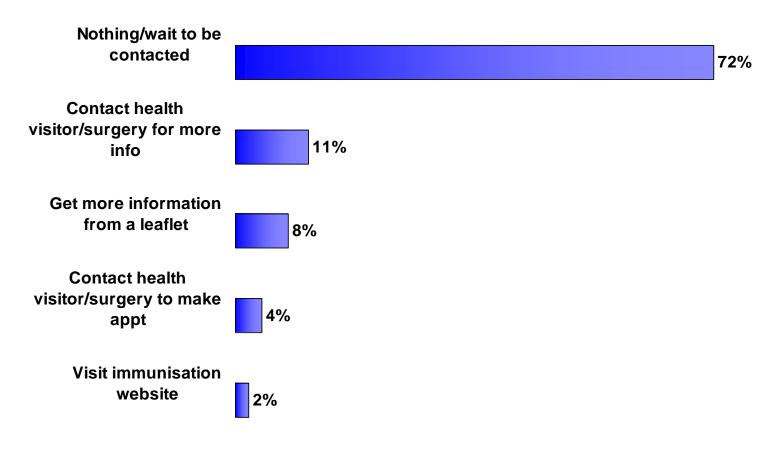


# Diseases pneumococcal vaccine was thought to protect against (unprompted).





# Perceived action to take for the pneumococcal vaccine (unprompted)



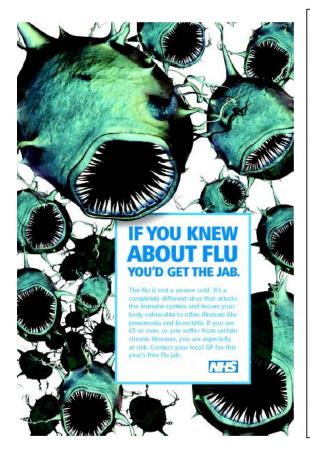


### Seasonal Flu campaign evaluation.

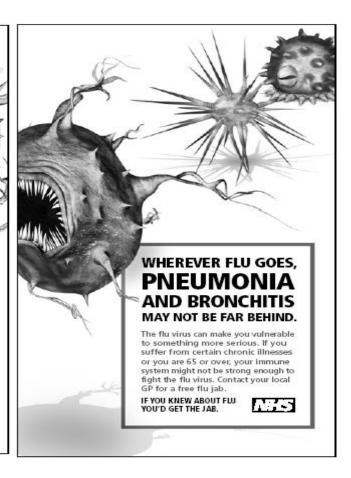
- Since 2000 a flu immunisation campaign had been aired in preparation for the winter period
- In 2004 a new advertising campaign was launched which introduced the flu 'virus' as the central theme. This included TV, press ads, pharmacy bags, leaflets, bus and internet advertising.
- The advertising campaign had three objectives:
  - Remind and motivate people over the age of 65 to make appointments to get the flu jab in October - November
  - Motivate people in at risk groups to get their flu jab
  - Achieve uptake of at least 72% among those 65 years or older and 60% among the medically at-risk
- The objective of the research was to evaluate whether the current campaign was still achieving good levels of awareness.



### **Press / Poster executions**









### **Advertising efficiency – Total sample**

		2005		2006		
Medium	Spend £'000	% Recog- nition	£'000 per % recognition	Spend £'000	% Recog- nition	£'000 per % recognition
Total (excluding trade)	1944	79	24.6	1218	80	15.2
TV	751	66	11.4	643	70	9.2
Press/posters	575	30	19.1	363	24	15.1
Pharmacy bags	98	17	5.8	42	19	2.2
Leaflets	152	31	4.9	124	28	4.4



# HPV vaccine: Attitudinal Research before introduction of vaccine.



### Attitudes towards vaccination Parents of 8 – 10 year old children (2005)

- Most participants were very positive vaccination is an important parental responsibility.
  - Mothers seemed more involved in health generally, few differences in parents' views.
- Perception that vaccination carries risks assumed responsibility for protecting children against risk.
  - 'Protector role' and MMR controversy meant they were more conscious of risks for children than for adults.
- Concern that children were too young.



# Research summary for 11 to 12 year olds (2007) – key concerns.

### **Parents**

- Vaccine safety and potential for damaging girls' future fertility
- A licence to engage in underage and unprotected sex
- Consent; parents were against the idea of their 11 12 year old children having the right to decide
- The majority supported the idea of a catch-up programme for thirteen to eighteen year olds

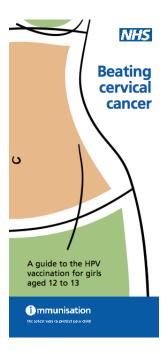
### Girls

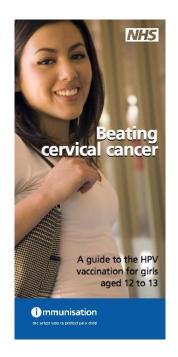
- Worried about the trauma of the injection
- Most girls were in favour of having the vaccination, and many felt that their parents would be supportive

### **Professionals**

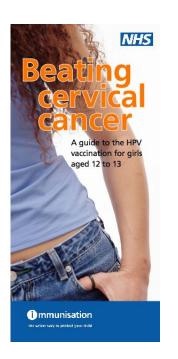
In favour of the vaccine providing programme adequately resourced









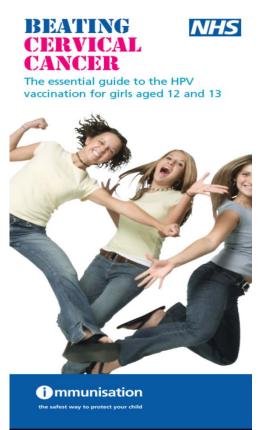


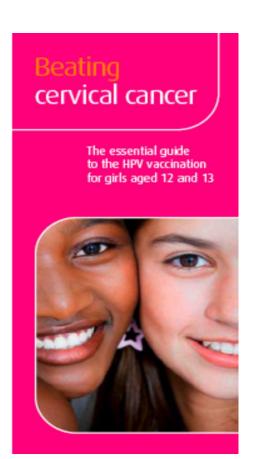




NHS















#### The new HPV vaccine for 12to 13-year-old, Year 8 girls, that protects against cervical cancer

- Cervical cancer is caused by a virus the human papillomavirus (HPV for short)
- The virus is spread during sexual activity with someone who is infected with the virus
- The virus infects the entrance to the womb the cervix.
- Mostly the virus is killed by the body's immune system.
- but not always
- . If the virus stays in the body it can cause cervical cancer
- sometimes many years later
- There's now a vaccine that can stop the virus causing cervical cancer - the human papillomavirus vaccine or HPV vaccine for short
- The vaccine needs to be given before someone starts having sex because having it after won't get rid of the virus if it has already infected the cervix
- There are several types of human papillomavirus that cause cervical cancer. The vaccine only prevents two of them so it is essential that women go for cervical screening tests when they are older. These tests pick up anything unusual in the surface of the cervix that might lead to cancer
- Having the HPV vaccine at school will protect young girls against cervical cancer later in life

### side effects

The side effects of the vaccination are quite mild - usually just stinging and soreness in the arm that soon wears off. The vaccine meets the rigorous safety standards required for it to be used in the UK and other European countries.

Very rarely, some people have a reaction soon after the injection. This reaction may be a rash or itching that affects some or all of the body. The nurse will know how to treat this. It is not a reason not to have more injections for HPV or other diseases.

Even more rarely, some people can have a severe reaction soon after the immunisation which makes it difficult for them to breathe and may make them collapse. This is called an anaphylactic reaction. These are extremely rare and nurses are trained to deal with them. People recover completely with treatment, usually within a few hours.



Speak to your nurse to arrange another one. It is important that you have all three doses.

### giving consent

You may be given a consent form that your parents should sign giving permission for you to have the vaccination. It's important that you return the signed form before your vaccination is due.

If your parents are not sure that you should have the vaccination you should still return the form and speak to your nurse, doctor or other healthcare professional. Having the vaccination now will help protect you against the most common causes of cervical cancer for many years.

#### more information

You can get more information at www.immunisation.nhs.uk/hpv where you and your parents can also download a question and answer sheet that gives more detailed information on giving consent and the other topics covered in this leaflet, or you can ask the nurse for a copy. You can also phone NHS Direct's special HPV helpline on 0845 602 3303.









against the commonest causes of cervical cancer

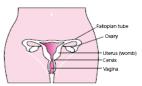
#### Beating cervical cancer

#### the essertial guide to the how vacanation for gurls aged 12 to 13

This leaflet is about the new vaccination (injection) to help protect you against cervical cancer when you get older. If you want more information, check out www.immunisation.nhs.uk/hpv

#### cervical cancer

Cervical cancer occurs in the cervix (the entrance to the womb - see diagram below). It is caused by a virus called the human papillomavirus or HPV. Cervical cancer can be very serious and around 1000 women die from it in the UK each year.



#### now and how it spreads

There are over 100 types of human papillomavirus but only 13 of them are known to cause cancer. The others cause conditions like genital warts (small fleshy lumps around the genital area) or are harmless. The virus is very common and you catch it by being sexually active with another person who already has the virus. Because it is so common, most people will get infected at some point in their lifetime. Most of the time, the virus does not cause cancer because it is killed off by the body's immune system, but not always - this is why the vaccine is so important.

#### the har vaccine

The vaccine protects against the two types of the virus that cause most (over 70%) of the cases of cervical cancer. It does not protect you against all of the other types, so you will still need to have cervical screening (tests) when you

by howing the vaccination you will reduce your risk of getting cervical cancer by over 70%

#### having the vaccination

You need to have the vaccination before you start being sexually active. And, while most girls don't start having sex before they're at least 16 or quite a bit older, it is recommended that you have the vaccine at 12 to 13 years of age to protect you as early as possible. Having the vaccine won't protect you against other sexually transmitted diseases like chlamydia and it won't stop you getting

You will need three injections over several months to get the best protection. Like the vaccinations you had as a baby, some vaccines need to be given as three or more doses to work properly. The nurse will give you the vaccination in your upper arm.

Your school or health authority will contact your parents when it is time for your vaccination.

#### can my older sister have the vaccine too?

Yes, older school girls will be offered the vaccine over the next couple of years see www.immunisation.nhs.uk/hpv





### Did the TV ad get any attention?

### Youtube 717 comments, viewed over 68,000 times

- hu sings this song? pls tell me love it.
- How good is the beat to this song!! I love it, been in my head all week:P
- who sings this its amazing?? pleas please please please tell meee
- Everytime this advert is on i always crank up the volume!!
- i think this is a bit of a pisstake that only year 8 girls are getting it. what about the rest of the girls?
- the years above get it next year smart arse



#### Statistics & Data

#### Total Views: 68,416



### Audiences

This video is most popular with:

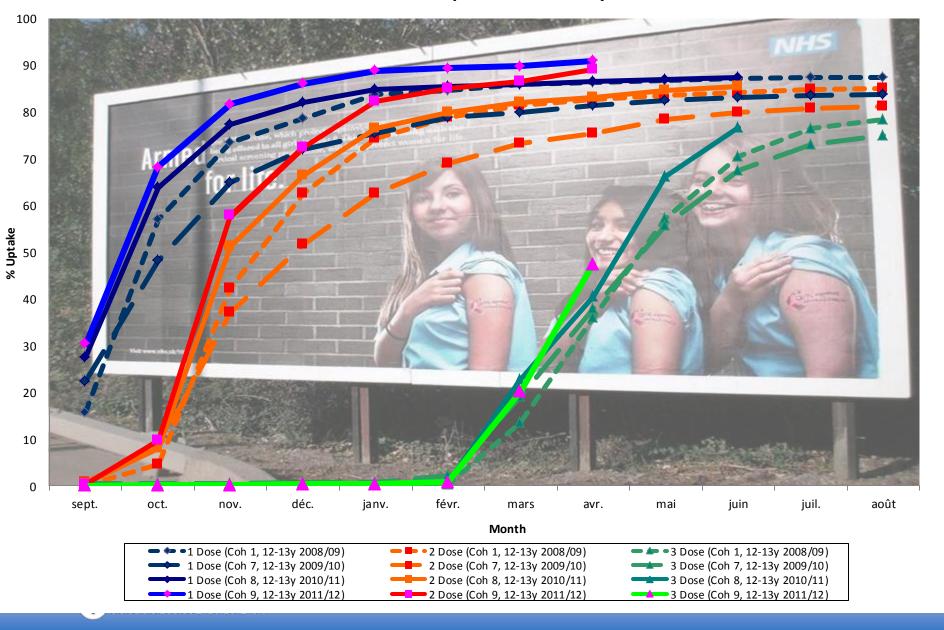
Gender	Age
Female	13-17
Female	18-24
Female	35-44

### This video is most popular in:





### HPV Vaccine Uptake - Routine Cohort (12-13 Year Olds) 2008/09, 2009/10, 2010/11 & 2011/12 Comparison - Monthly Data



# Immunisation communication - public perspectives.

- Public acceptability will be of increasing importance, irrespective of scientific virtues.
- The media provide the interface between immunisation programmes and the public.
- We cannot assume that the media share our views and we must recognise their independence.
- The public increasingly seek information on an active basis.
- The internet, where information is unregulated, contains much that is potentially wrong and harmful.
- We must compete effectively and dedicate as much effort to communicating on vaccines as we do on providing them.

