Vacunación frente a VPH, y tosferina

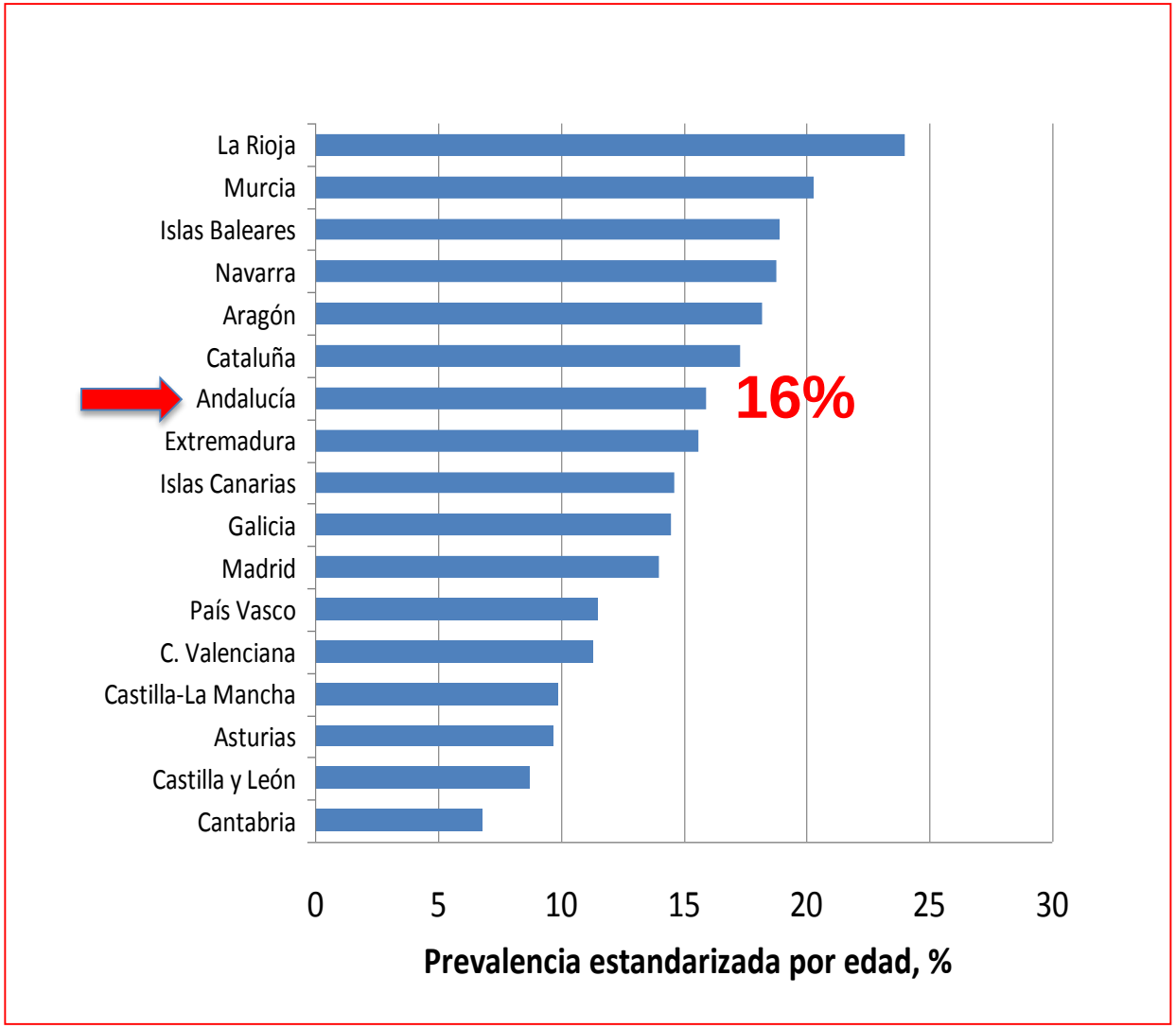
Vacunación VPH

Donde estamos y hacia donde vamos…

1. Esquemas con 2 dosis a los 12 años
2. Datos recientes: efectividad y seguridad
3. VPH-9

#vacunasparatodos

Prevalencia de infección VPH en mujeres (18-65) según CC. AA.



Castellsagué X, et al. J Med Virol 2012

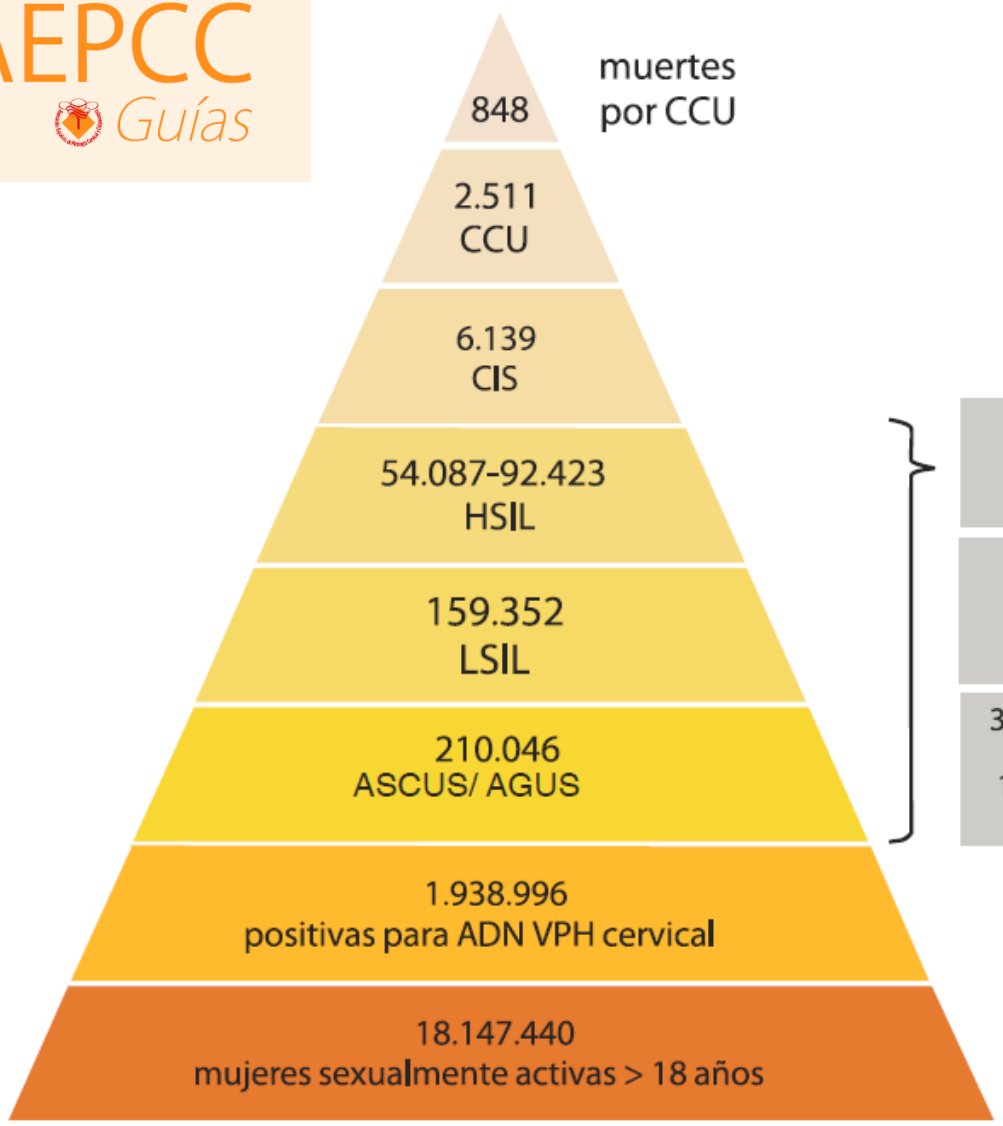
Cánceres atribuibles al VPH en España

Tabla 1. Impacto de los cánceres asociados al VPH en España (2012-2013)

	CERVIX	VAGINA	VULVA	ANO	PENE	OROFARINGE	Total
Casos Incidentes	2511	115	664	372	294	951	**4907**
Muertes	848	50	344	94	118	570	**2024**
Fracción atribuible a VPH	1	0,74	0,29	0,88	0,33	7,1% (Hombres) 27,5% (Mujeres)	
Casos atribuibles a VPH	2511	85	193	327	97	95	**3308**

Fuentes: Incidencia: Globocan 2012; Mortalidad: WHO mortality database (2013); Fracciones atribuibles al VPH: Cáncer de cérvix: Walboomers et al., J Pathol 1999; De Sanjosé et al., Lancet Oncol 2010; Cáncer de vagina: Alemany et al., Eur J Cancer 2014; Cáncer de vulva: De Sanjosé et al., Eur J Cancer 2013; Cáncer de ano: Alemany et al., Int J Cancer 2015; Cáncer de pene: Alemany et al., Eur Urol 2016; Cáncer de orofaringe (incluye base de lengua): Castellsagué et al., JNCI 2016 (datos específicos de España según sexo facilitados por los autores).

AEPCC Guías



Estimaciones de la carga de enfermedades por infección cervical por VPH en España

438.358 citologías anormales

287.067 detectadas en cribado trianual

151.291 no detectadas

32.586 en 18-24 años

247.400 en 25-65 años

7.081 en 65+

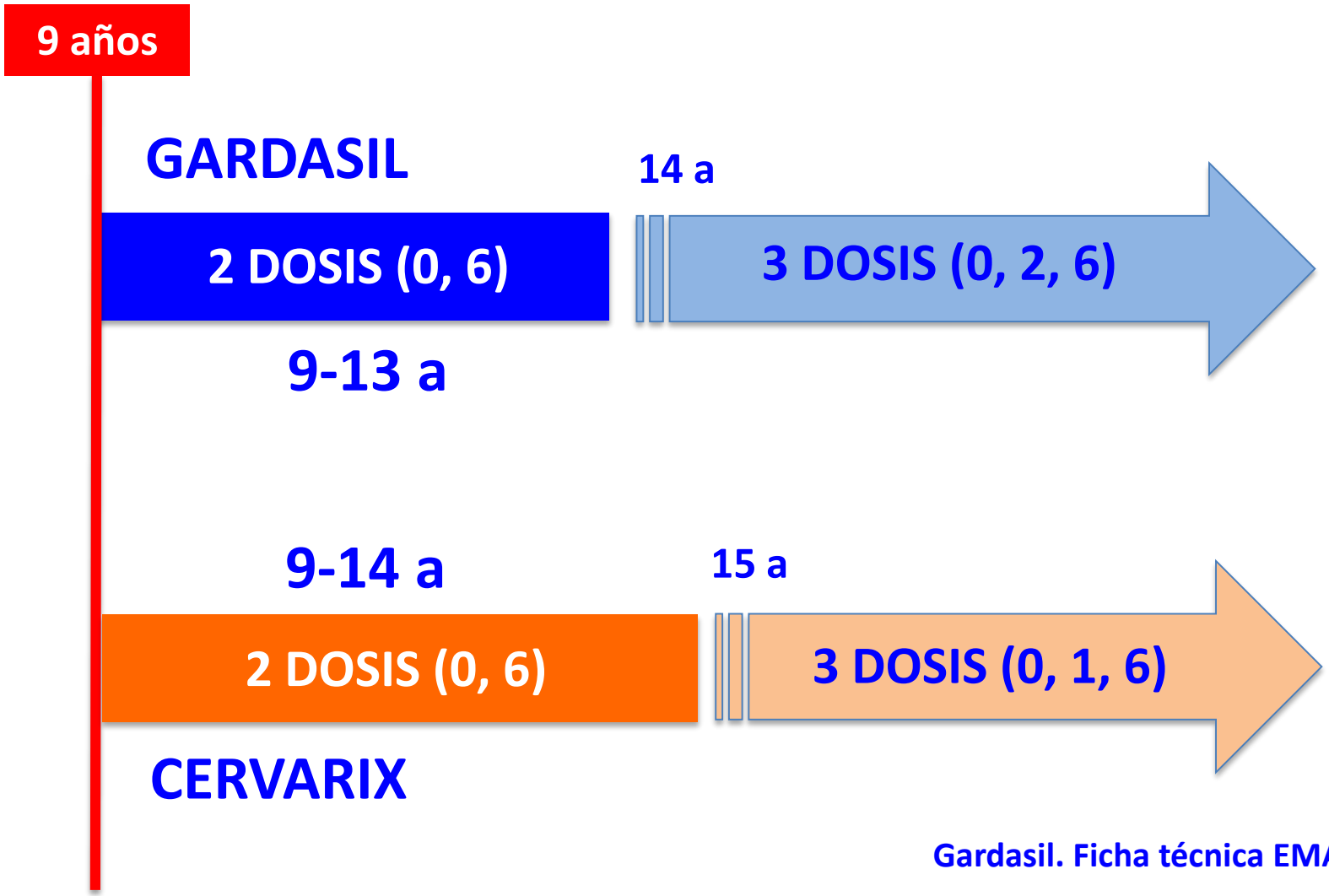
Vacunas frente al VPH

Tabla 2. Principales características de las tres vacunas profilácticas frente a VPH.

	Cervarix ®[23] - GSK	Gardasil ®[24] - Merck/SPMSD	Gardasil 9 ®[25] - Merck/SPMSD
Tipos de VLP	16/18	6/11/16/18	6/11/16/18/ 31/33/45/52/58
Contenido	20/20 cmg	20/40/40/20 mcg	30/40/60/40 mcg 20/20/20/20/20 mcg
Adyuvante	AS04 (hidróxido de aluminio, MPL)	Hidroxifosfato sulfato de aluminio (AAHS)*	Hidroxifosfato sulfato de aluminio (AAHS)**
Pautas***	0, 6 meses (9-14 años) 0, 1, 6 meses (>=15 años)	0, 6 meses (9-13 años) 0, 2, 6 meses (>=14 años)	0, 6 meses (9-14 años) 0, 2, 6 meses (>=15 años)
Indicaciones	Lesiones precancerosas cervicales, vulvares, vaginales y anales, y cáncer de cérvix y ano	Lesiones precancerosas cervicales, vulvares, vaginales y anales, y cáncer de cérvix y ano; verrugas genitales	Lesiones precancerosas y cáncer de cuello uterino, vulva, vagina y ano; verrugas genitales

MPL: monofosforil lípido A; VLP: *virus-like particles*

VACUNAS VPH: 2 dosis en adolescentes



Gardasil. Ficha técnica EMA 2015

Cervarix. Ficha técnica EMA 2015

OMS – Documento VPH 2014

- Pauta de 2 dosis (0, 6 meses) para niñas <15 años
- Pauta de 3 dosis para niñas ≥15 años

- Pauta de 3 dosis para **INMUNOCOMPROMETIDAS**

A 3-dose schedule (0, 1–2, 6 months) is recommended for females aged 15 years and older, and for those known to be immunocompromised and/or HIV-infected (regardless of whether they are receiving antiretroviral therapy). It is not necessary to screen for HPV infection or HIV infection prior to HPV vaccination.

WHO. Weekly Epidemiol Rep. Oct 2014

¿POR QUÉ ES MEJOR VACUNAR ANTES DE LOS 14 AÑOS?

ASEGURAR QUE NINGUNA ADOLESCENTE HAYA INICIADO ACTIVIDAD SEXUAL

PARA QUE SUBAN LAS COBERTURAS

Mayor aceptabilidad

Mayor cumplimiento

Menos efectos adversos

TABLA 8: COBERTURAS DE VACUNACIÓN FRENTE A VIRUS DEL PAPILOMA HUMANO (VPH). PAUTA COMPLETA NIÑAS DE 11-14 AÑOS. COMUNIDADES AUTÓNOMAS 2015 O CURSO ESCOLAR 2014-2015				
CC.AA	**Población objeto**	**Fuente**	**nº dosis**	**%**
Andalucía	43.031	BDU	28.243	65,6
Aragón*	5.600	IAE	4.946	88,3
Asturias	3.520	SIPRES Cohorte 2001	2.606	74,0
Baleares*	5.185	Padrón	3.726	71,9
Canarias	10.237	TIS	9.373	91,6
Cantabria	2.619	INE	2.005	76,6
Castilla y León	9.524	Censo escolar curso 2014-2015 nacidas 2001	8.704	91,4
Castilla La Mancha	9.762	Tarjeta sanitaria	7.166	73,4
Cataluña	36.259	Vacunación escolar	30.026	82,8
C. Valenciana	23.391	Tarjeta sanitaria	18.700	79,9
Extremadura	5.489	CIVITAS	4.408	80,3
Galicia	10.188	IGE. Padrón 2015	8.076	79,3
Madrid	30.611	Padrón 2014	24.899	81,3
Murcia	8.054	Censo escolar nacidos 2004	6.618	82,2
Navarra	3.086	TIS	2.659	86,2
P. Vasco	9.186	Departamento Educación	8.422	91,7
La Rioja	1.478	Censo escolar	1.380	93,4
Ceuta	500	INE	465	93,0
Melilla	581	Padrón municipal	474	81,6
TOTAL	**218.301**		**172.896**	**79,2**

Vaccine 34 (2016) 1863–1864

Contents lists available at ScienceDirect

Vaccine

journal homepage: www.elsevier.com/locate/vaccine

Commentary

HPV vaccine: Less is more

Rachel Caskey*, Steven Andes, Surrey M Walton

Departments of Pediatrics and Internal Medicine, University of Illinois at Chicago, 840 S. Wood St., Clinical Sciences North, 440 M/C 718, Chicago, IL 60612, United States

about virus transmission and disease prevention, by discussing the HPV vaccine separately from the other adolescent vaccines we are sending the wrong message to parents: *this vaccine is different.*

We propose a 'less is more' strategy when recommending the HPV vaccine, namely less talking and more recommending. Given the overwhelming evidence regarding safety and efficacy for the HPV vaccine, a more direct and consistent recommendation is warranted and could lead to an increase in vaccination rates by eliminating this unintentional signal of clinical uncertainty to parents [9]. In some cases, education may increase resistance to vaccines and extended explanations may confuse more than facilitate an informed choice [10]. Giving a single uniform recommendation for all adolescent vaccines can be achieved with little investment and can have important cost and health implications moving forwards. Others have discussed the fact that discussing

Caskey R, et al. Vaccine 2016

Vacunación VPH

Donde estamos y hacia donde vamos…

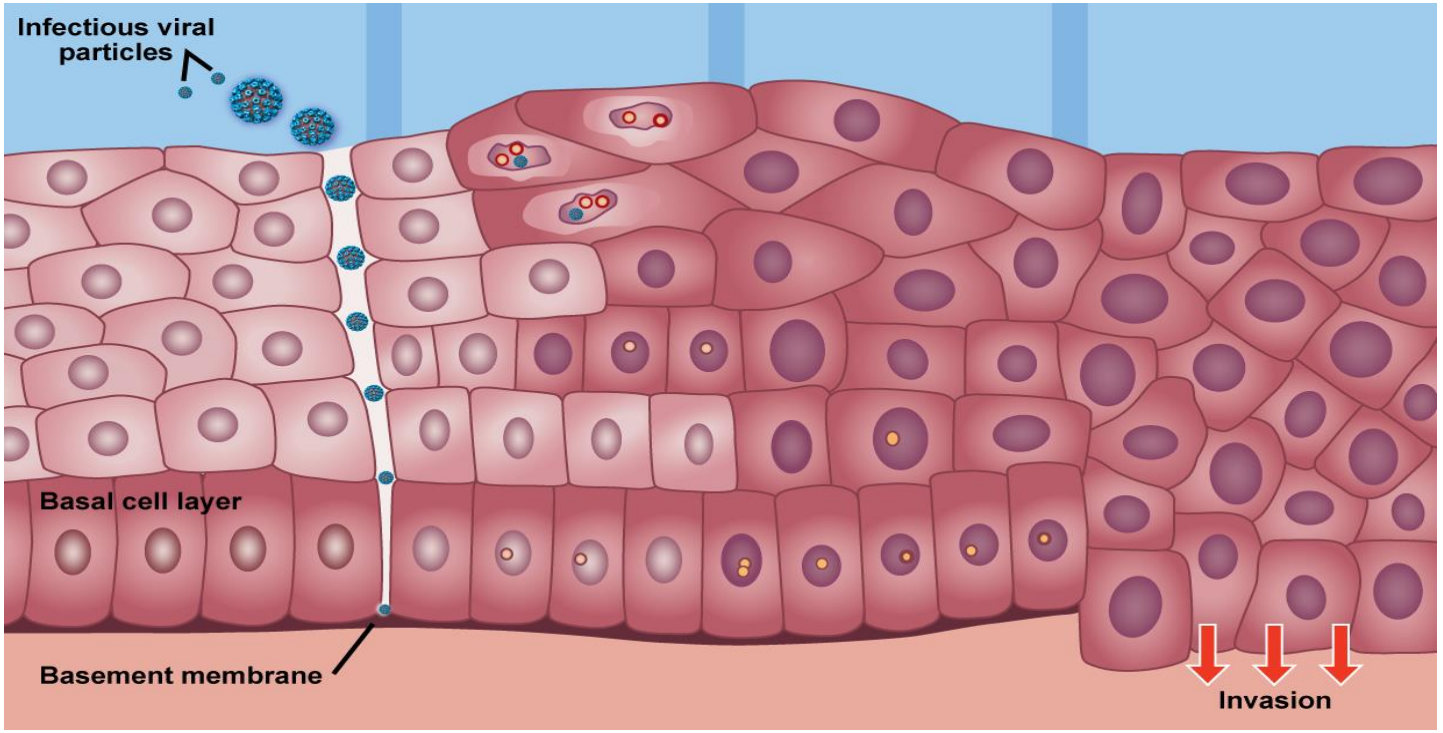
1. Esquemas con 2 dosis a los 12 años
2. **Datos recientes: efectividad y seguridad**
3. VPH en varones
4. VPH-9

#vacunasparatodos

Cánceres relacionados con VPH tienen un vía de desarrollo similar

Desarrollo de la enfermedad[1,5,*]

Infección Inicial ⇄ Infección persistente ⇄ Neoplasia Intraepitelial 2/3 → Carcinoma invasivo



La infección inicial transcurre después de la transmisión desde un compañero sexual o autoinoculación desde otro sitio anatómico[2,3]

*The pathogenetic process of disease development is similar in all affected epithelial tissues of the anogenital tract and oral cavity[1]. HPV = human papillomavirus

1. Alani RM et al. J Clin Oncol 1998
2. Bruchell A et al. Epidemiol 2010
3. Hernandez BY et al Emerg Infect Dis 2008
4. D'Souza G et al. J Infect Dis. 2009
5. Zandberg et al. Cancer J Clin 2013

VACUNAS VPH: eficacia

Centers for Disease Control and Prevention
MMWR
Recommendations and Reports / Vol. 63 / No. 5
Morbidity and Mortality Weekly Report
August 29, 2014

Human Papillomavirus Vaccination
Recommendations of the Advisory Committee on Immunization Practices (ACIP)

TABLE 4. Per-protocol efficacy for prevention of human papillomavirus vaccine-type disease outcomes among females in trials of the bivalent and quadrivalent human papillomavirus vaccines, end-of-study analyses

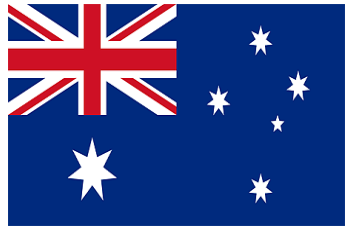
	Vaccine		Control		Vaccine efficacy	
Vaccine/Endpoint related type	No.	Cases	No.	Cases	%	(95% CI)
Quadrivalent vaccine*						
CIN2/3 or AIS†						
HPV 6, 11, 16, 18	7,864	2	7,865	110	98.2	(93.3–99.8)
HPV 16	6,647	2	6,455	81	97.6	(91.1–99.7)
HPV 18	7,382	0	7,316	29	100.0	(86.6–100.0)
VIN/VaIN2/3†						
HPV 6, 11, 16, 18	7,900	0	7,902	23	100.0	(82.6–100.0)
HPV 16	6,654	0	6,467	17	100.0	(76.5–100.0)
HPV 18	7,414	0	7,343	2	100.0	(<0–100.0)
Genital warts§						
HPV 6 and/or 11	6,718	2	6,647	186	98.9	(96.1–99.9)
Bivalent vaccine¶						
CIN2/3 or AIS						
HPV 16 and/or 18	7,338	5	7,305	97	94.9	(87.7–98.4)
HPV 16	6,296	2	6,160	81	97.6	(91.0–99.7)
HPV 18	6,789	3	6,739	23	87.1	(57.2–97.5)

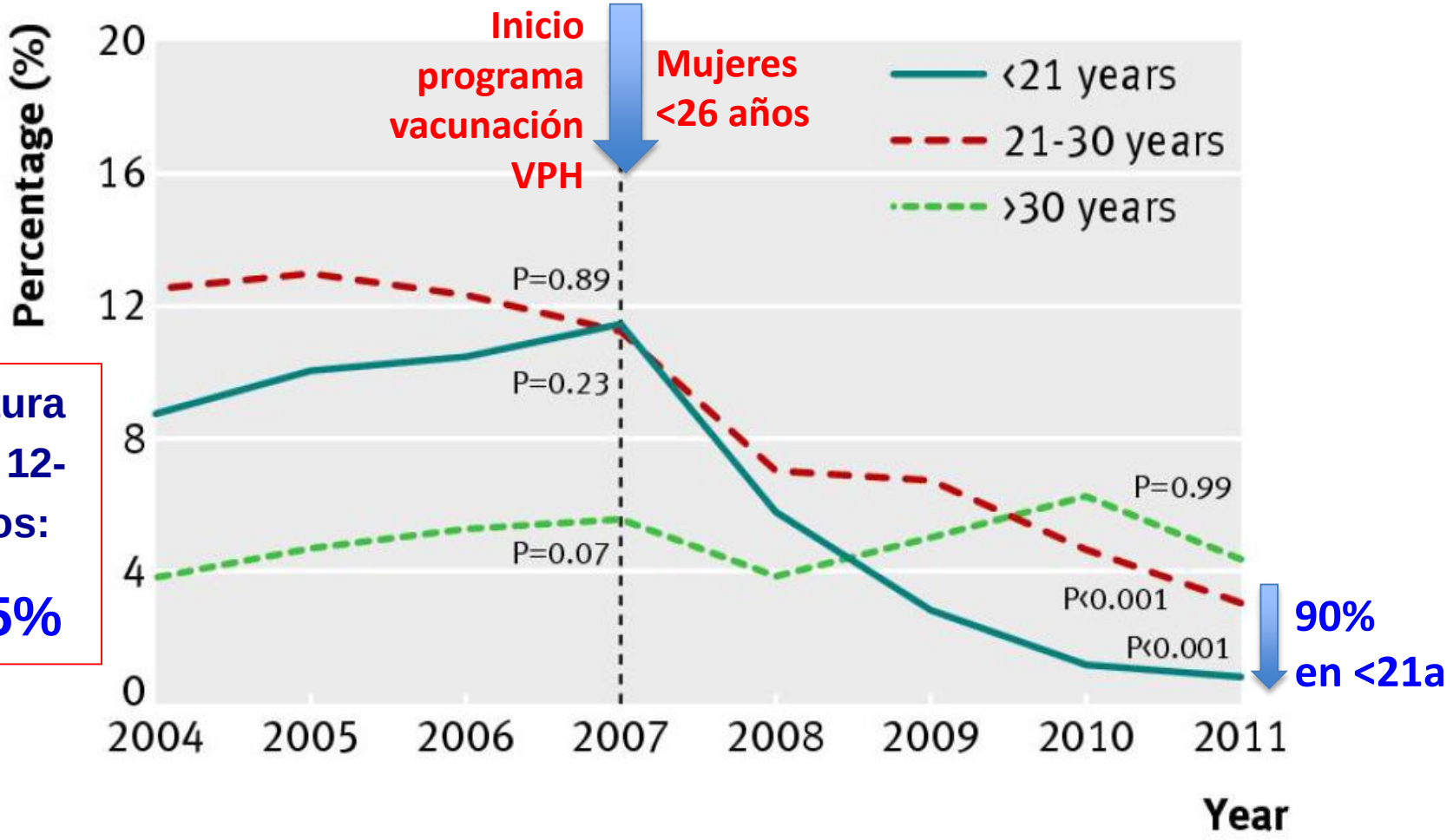
CDC. MMWR August 2014

A corto plazo: **verrugas** genitales

VPH-4: verrugas genitales

Mujeres < 30 años





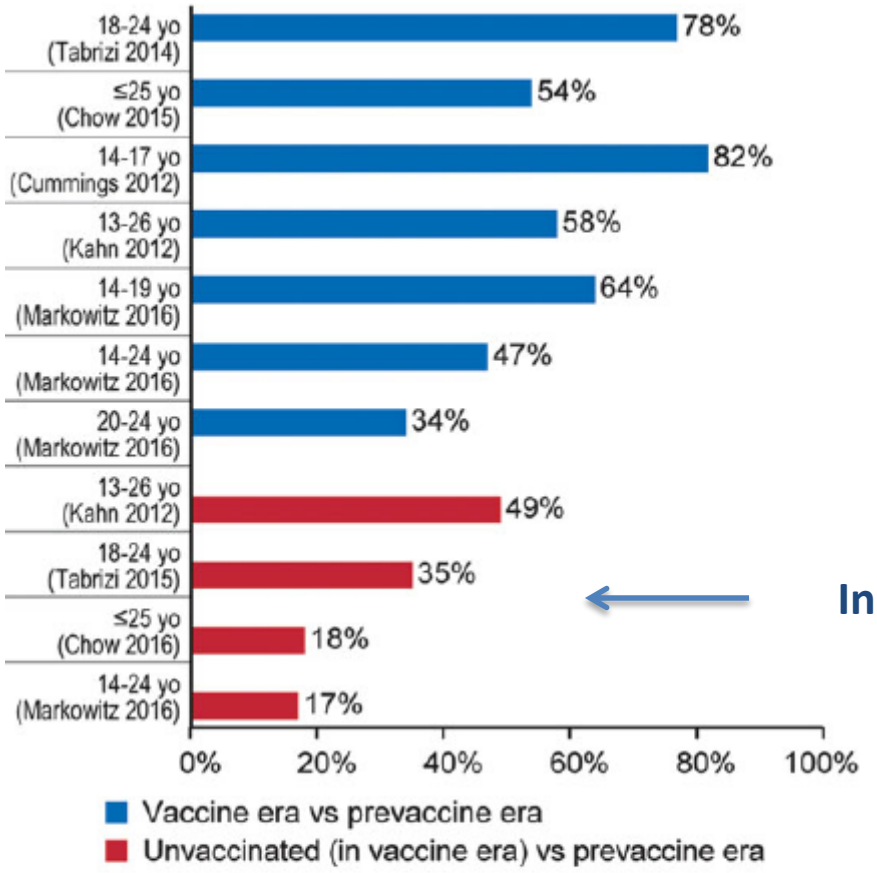
Cobertura chicas 12-17 años:

75-85%

Ali H, et al. BMJ 2013

A medio plazo: lesiones **preneoplásicas**

Prevalencia de infección por VPH 6 -11 en periodos pre y vacunal

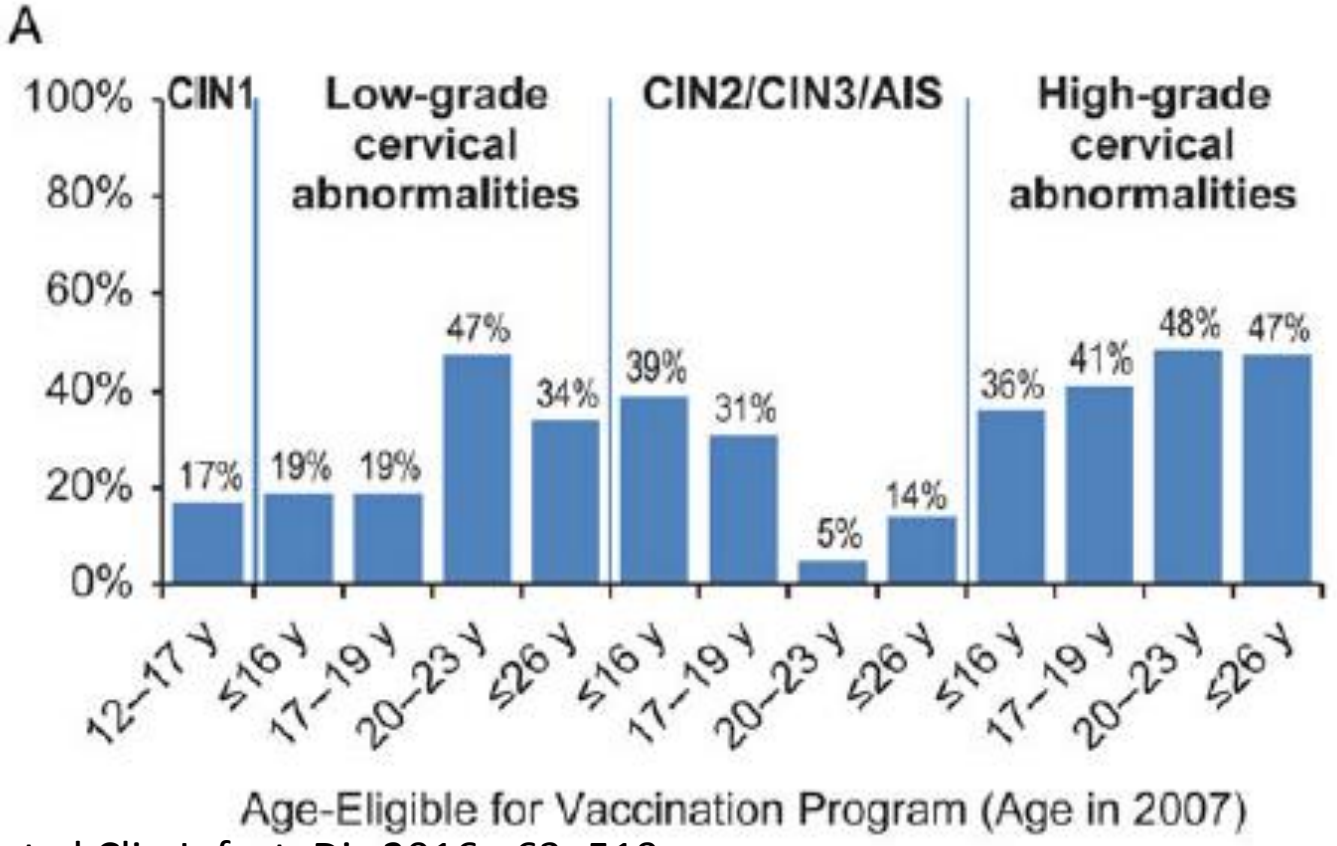


Inmunidad de grupo

Garland et al Clin Infect Dis 2016; 63: 519

Reducción de lesiones cervicales en vacunadas vs no vacunadas

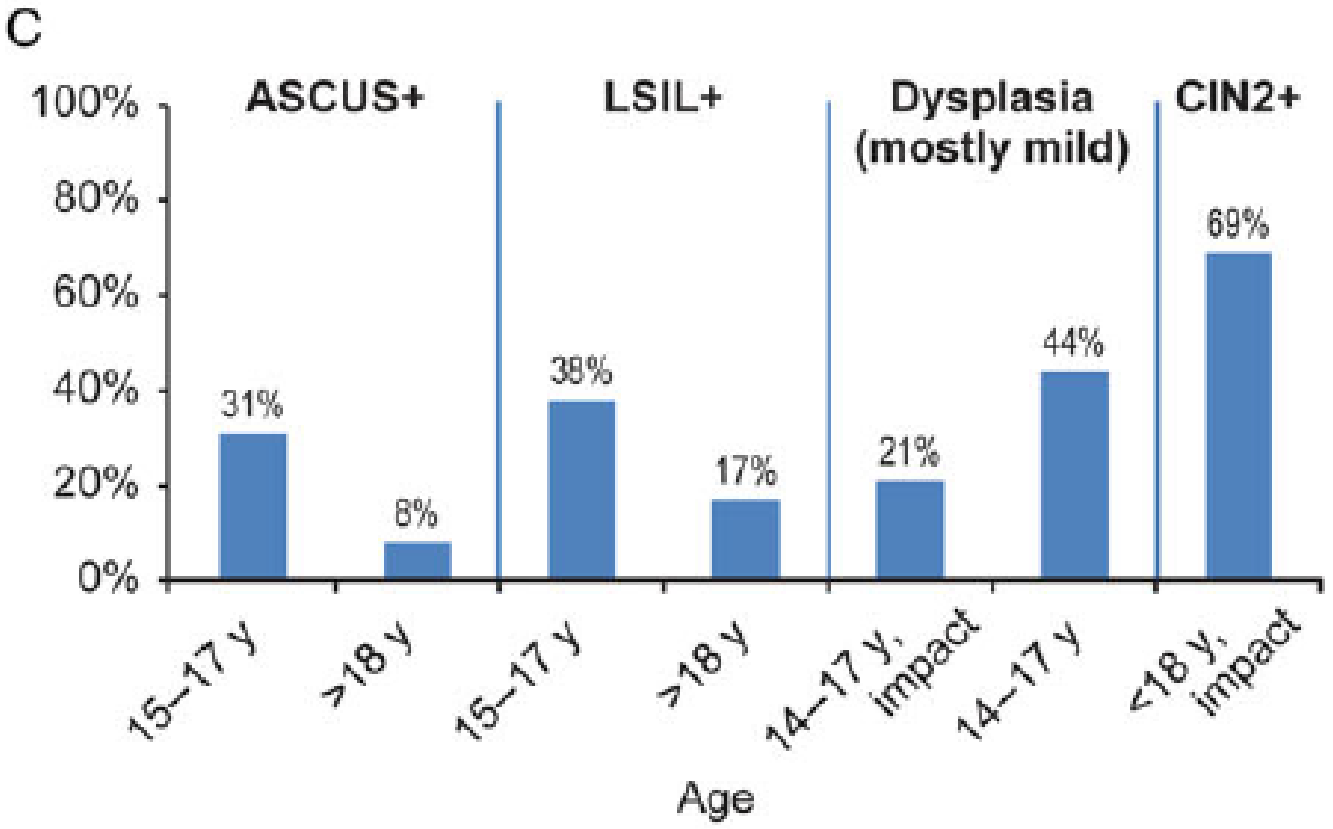
Australia



Garland et al Clin Infect Dis 2016; 63: 519

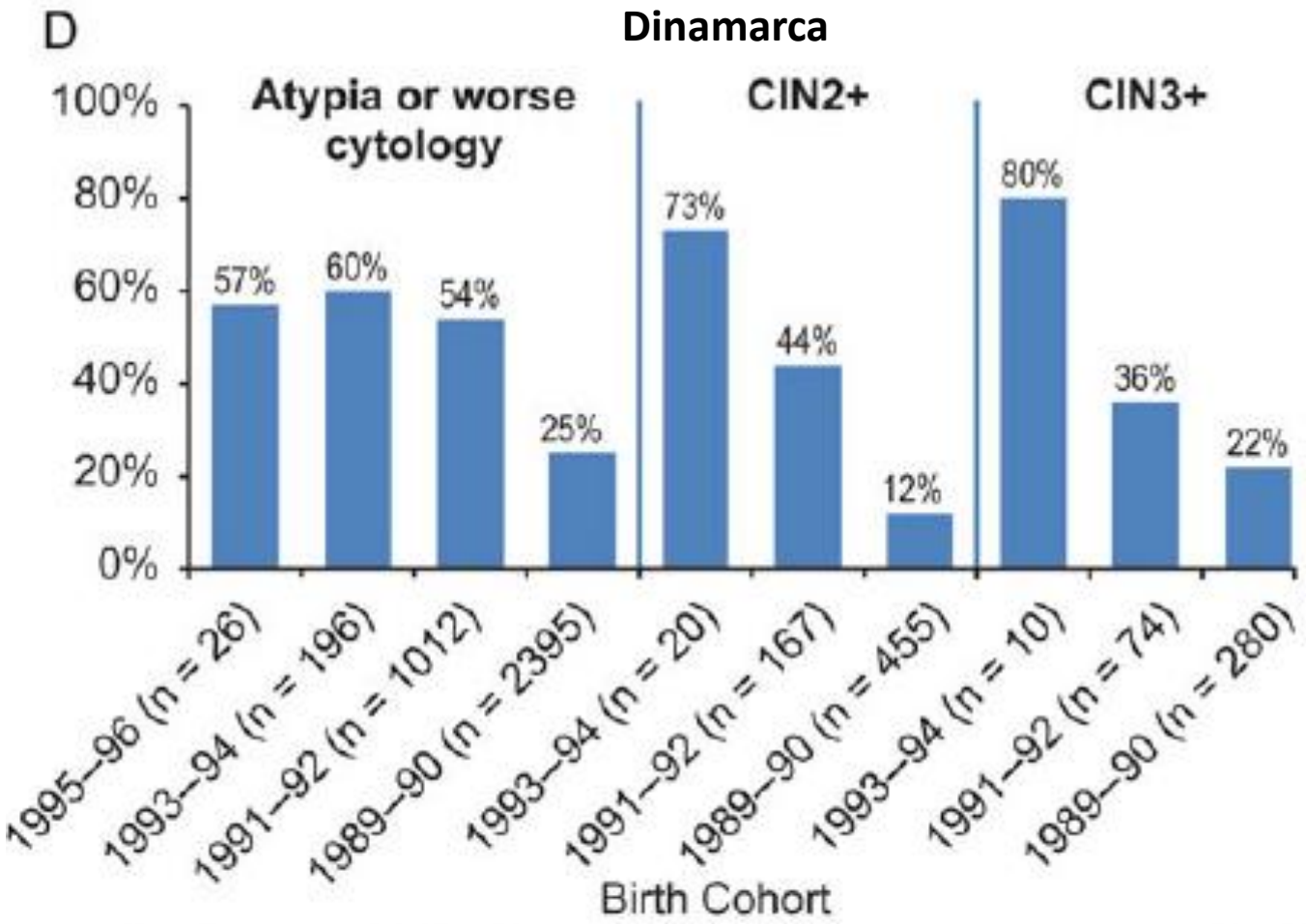
Reducción de lesiones de cérvix en mujeres vacunadas en la era vacunal *vs* no vacunadas y mujeres de la era prevacunal

Canadá

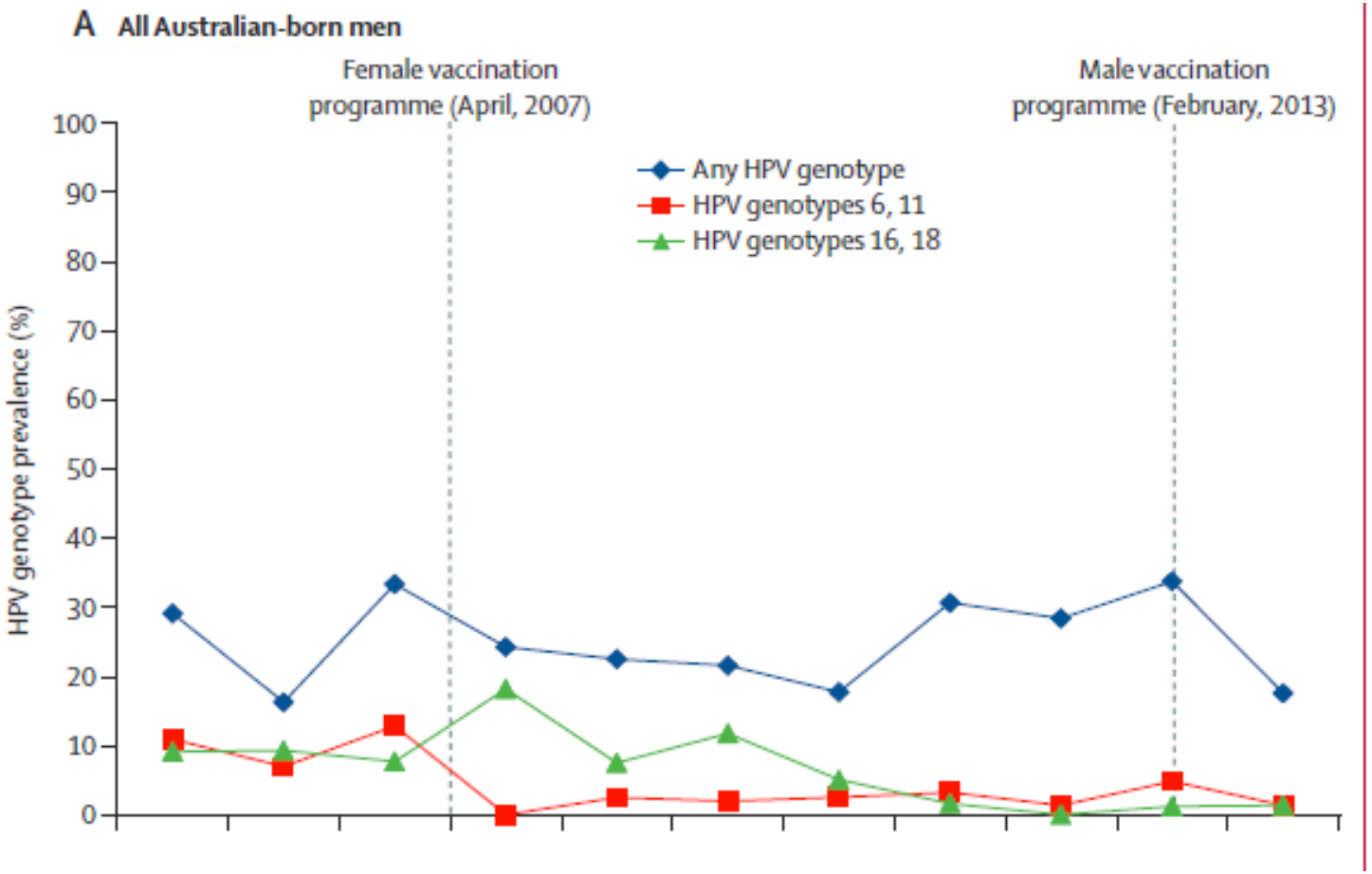


Garland et al Clin Infect Dis 2016; 63: 519

Reducción de lesiones en mujeres vacunadas vs no vacunadas (por cohortes de nacidas)

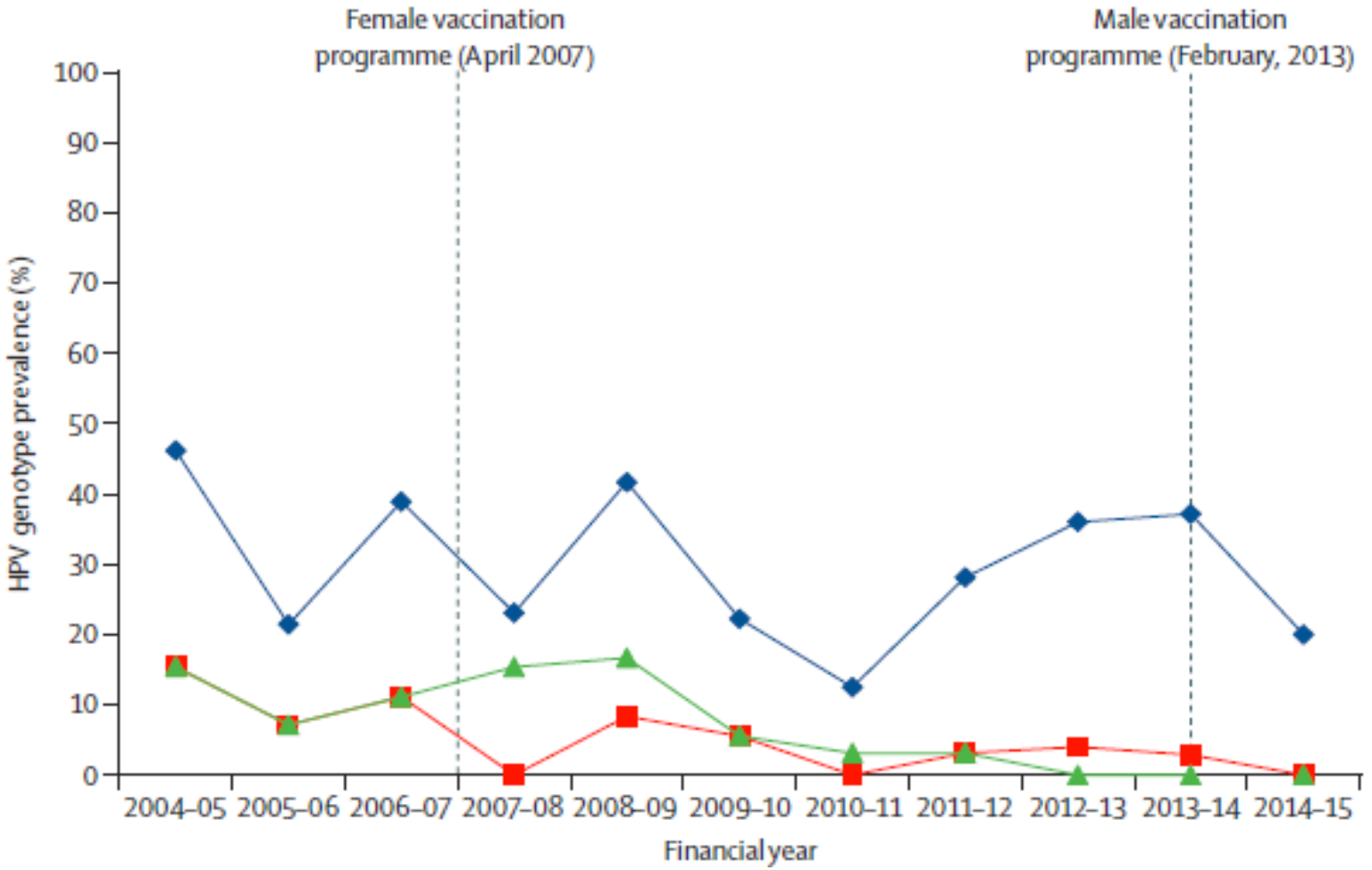


Inmunidad de Grupo. Infección por VPH en hombres. (Australia)



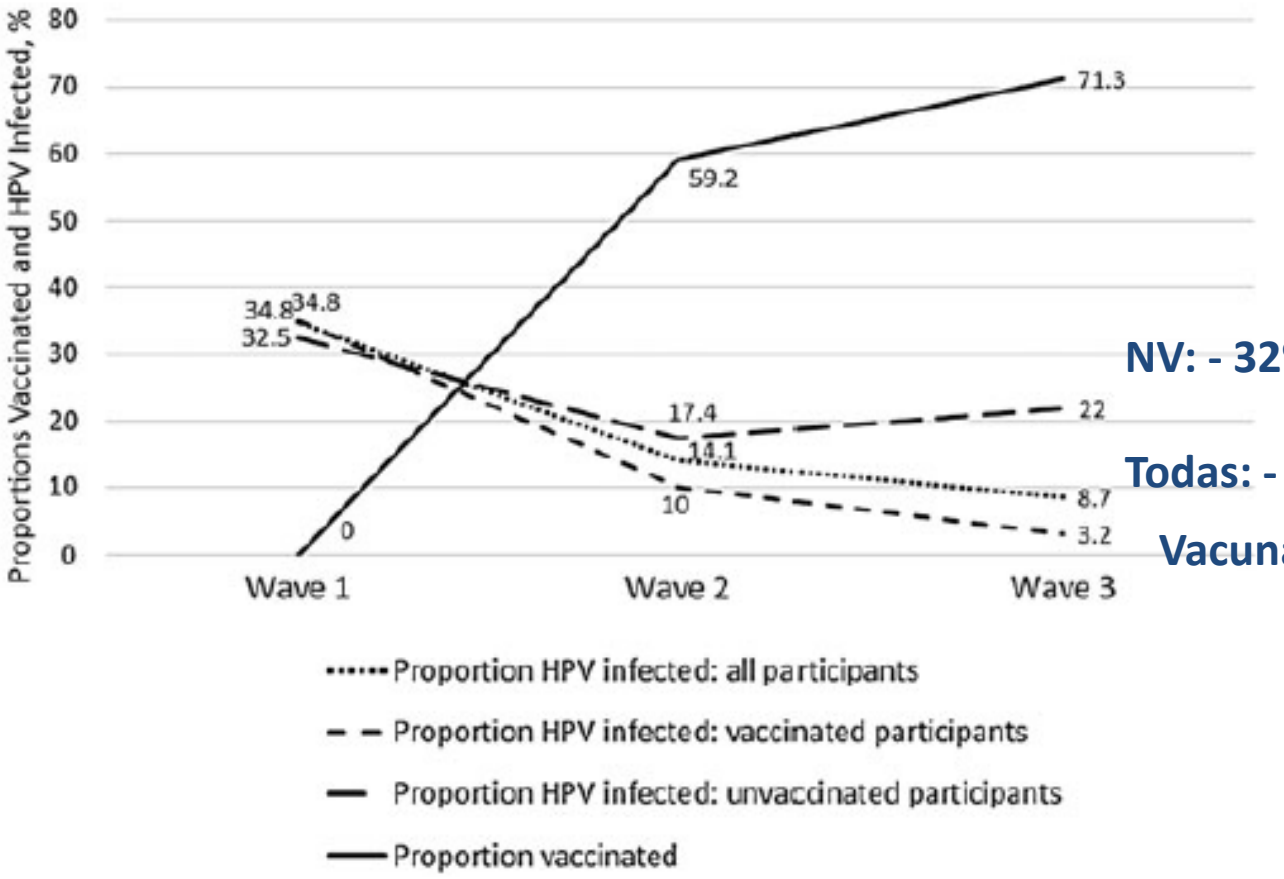
Chow EP, et al. Lancet Infect Dis 2017; 17: 68-77

Inmunidad de Grupo. Infección por VPH en hombres. (Australia)



Chow EP, et al. Lancet Infect Dis 2017; 17: 68-77

Infecciones por VPH en Ohio



NV: - 32%

Todas: - 75

Vacuna : - 91%

Kahn JA, et al. CID 2016: 63: 1281-7

Tabla 3. Vacunación selectiva frente a VPH. Recomendaciones en España según Comunidad Autónoma (2016)

Comunidad Autónoma	Indicaciones vacunales
Asturias	Mujeres inmunocomprometidas hasta los 26 años
Cataluña	Mujeres infectadas por VIH hasta los 26 años
Islas Baleares	Mujeres sometidas a conización por CIN2+ o por adenocarcinoma *in situ*
Islas Canarias	Mujeres sometidas a conización de 25 a 45 años Mujeres con enfermedad inflamatoria intestinal de 18 a 65 años
La Rioja	Mujeres sometidas a conización hasta los 50 años por CIN2+ o por adenocarcinoma *in situ* en los últimos 6 meses o que estén programadas para la misma, y con resultado positivo de infección por tipos oncogénicos de VPH mediante PCR
Madrid	Mujeres sometidas a conización por CIN2+ en los últimos 3 años, hasta los 45 años; la vacuna se administrará lo antes posible una vez realizado el diagnóstico. Se puede vacunar antes, durante o después del tratamiento.
Murcia	Mujeres sometidas a conización con los siguientes criterios: • Proceso escisional por CIN 2+ o por adenocarcinoma *in situ*; • Intervalo máximo de un mes entre tratamiento y solicitud de la vacunación; • Edad comprendida entre los 20 y 45 años; • Determinación previa de infección por oncotipos VPH y seguimiento posterior mediante citología y determinación VPH
Navarra	Mujeres mayores de 26 años no inmunizadas previamente, sexualmente activas, y con indicación médica por: • Haber sido sometidas a conización; • Inmunodeficiencias congénitas o adquiridas, incluida la infección por VIH; • Enfermedades que requieran o puedan requerir tratamiento con fármacos inmunosupresores • Trasplante de órgano sólido o de precursores hematopoyéticos.

Eficacia de VPH-4 : ESTUDIO SPERANZA

Mujeres tratadas con escisión electroquirúrgica para prevenir recaída por CIN

- ✓ **398** pacientes incluidas
- ✓ Mediana de seguimiento: 27 meses

Grupo control: 11/162 (6%) desarrolló recurrencia

Grupo vacunado: 2/162 (1%) desarrolló recurrencia

p=0,0199

- ✓ **Estos resultados preliminares indican que 4vVPH después de LEEP podría ser útil para prevenir la recurrencia por la enfermedad**
- ✓ **La vacunación frente al VPH podría prevenir nuevas infecciones subsecuentes o recurrencias del mismo tipo**
- ✓ **Las implicaciones clínicas de esto podrían ser muy grandes, para modificar el manejo de las enfermedades VPH post tratamiento**

A. Ghelardi. EUROGIN, 2016

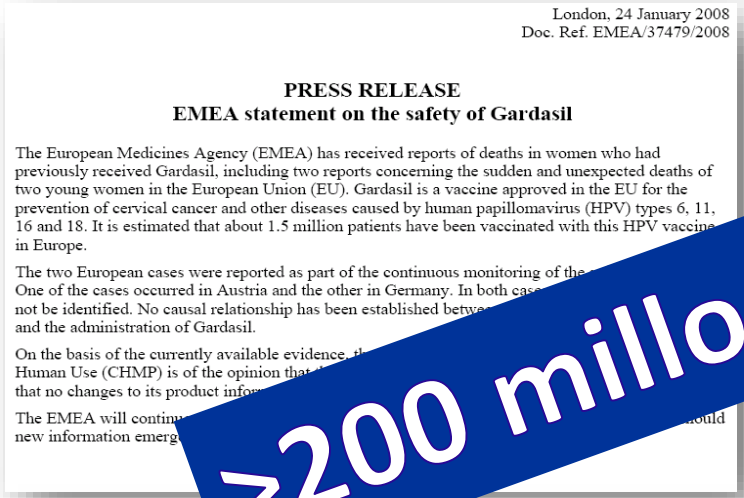
Vacunación VPH

Donde estamos y hacia donde vamos…

1. Esquemas con 2 dosis a los 12 años
2. **Datos recientes: efectividad y seguridad**
3. VPH en varones
4. VPH-9

#vacunasparatodos

Todas las autoridades sanitarias confirman una y otra vez la seguridad de las vacunas VPH



London, 24 January 2008
Doc. Ref. EMEA/37479/2008

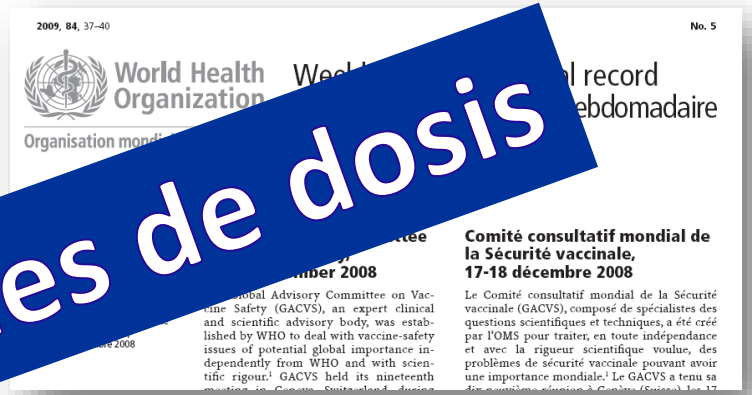
PRESS RELEASE
EMEA statement on the safety of Gardasil

The European Medicines Agency (EMEA) has received reports of deaths in women who had previously received Gardasil, including two reports concerning the sudden and unexpected deaths of two young women in the European Union (EU). Gardasil is a vaccine approved in the EU for the prevention of cervical cancer and other diseases caused by human papillomavirus (HPV) types 6, 11, 16 and 18. It is estimated that about 1.5 million patients have been vaccinated with this HPV vaccine in Europe.

The two European cases were reported as part of the continuous monitoring of the
One of the cases occurred in Austria and the other in Germany. In both cas
not be identified. No causal relationship has been established betwe
and the administration of Gardasil.

On the basis of the currently available evidence, th
Human Use (CHMP) is of the opinion that
that no changes to its product infor

The EMEA will contin
new information emerg



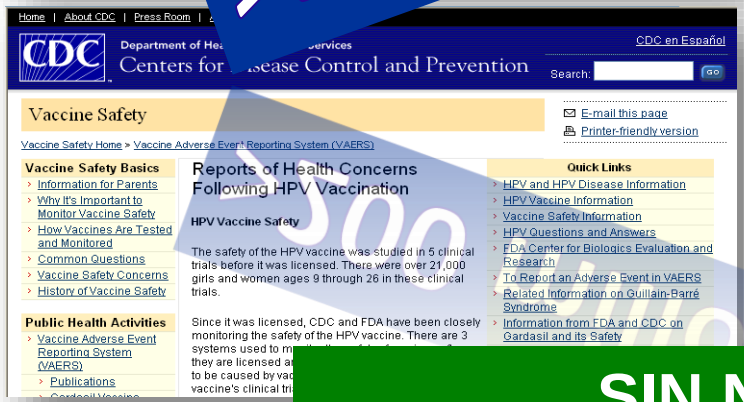
2009, 84, 37-40 No. 5

World Health Organization

Wee l record
ebdomadaire

Comité consultatif mondial de la Sécurité vaccinale, 17-18 décembre 2008

Le Comité consultatif mondial de la Sécurité vaccinale (GACVS), composé de spécialistes des questions scientifiques et techniques, a été créé par l'OMS pour traiter, en toute indépendance et avec la rigueur scientifique voulue, des problèmes de sécurité vaccinale pouvant avoir une importance mondiale.[1] Le GACVS a tenu sa



Home | About CDC | Press Room

CDC en Español

Search: GO

Centers for Disease Control and Prevention

Vaccine Safety

E-mail this page
Printer-friendly version

Vaccine Safety Home > Vaccine Adverse Event Reporting System (VAERS)

Vaccine Safety Basics
- Information for Parents
- Why It's Important to Monitor Vaccine Safety
- How Vaccines Are Tested and Monitored
- Common Questions
- Vaccine Safety Concerns
- History of Vaccine Safety

Public Health Activities
- Vaccine Adverse Event Reporting System (VAERS)
- Publications

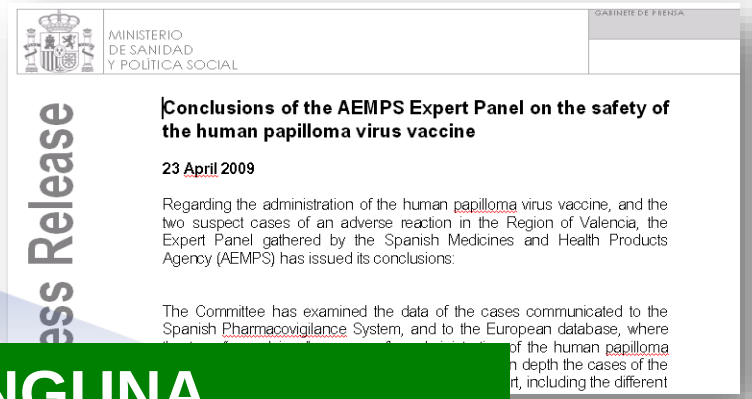
Reports of Health Concerns Following HPV Vaccination

HPV Vaccine Safety

The safety of the HPV vaccine was studied in 5 clinical trials before it was licensed. There were over 21,000 girls and women ages 9 through 26 in these clinical trials.

Since it was licensed, CDC and FDA have been closely monitoring the safety of the HPV vaccine. There are 3 systems used to m
they are licensed a
to be caused by vac
vaccine's clinical tri

Quick Links
- HPV and HPV Disease Information
- HPV Vaccine Information
- Vaccine Safety Information
- HPV Questions and Answers
- FDA Center for Biologics Evaluation and Research
- To Report an Adverse Event in VAERS
- Related Information on Guillain-Barré Syndrome
- Information from FDA and CDC on Gardasil and its Safety



MINISTERIO DE SANIDAD Y POLITICA SOCIAL

GABINETE DE PRENSA

ess Release

Conclusions of the AEMPS Expert Panel on the safety of the human papilloma virus vaccine

23 April 2009

Regarding the administration of the human papilloma virus vaccine, and the two suspect cases of an adverse reaction in the Region of Valencia, the Expert Panel gathered by the Spanish Medicines and Health Products Agency (AEMPS) has issued its conclusions:

The Committee has examined the data of the cases communicated to the Spanish Pharmacovigilance System, and to the European database, where
of the human papilloma
depth the cases of the
rt, including the different

>200 millones de dosis

SIN NINGUNA SEÑAL DE ALERTA

SEGURIDAD VACUNA VPH-4

VACCINE REPORTS

An Overview of Quadrivalent Human Papillomavirus Vaccine Safety

2006 to 2015

Michelle Vichnin, MD, Paolo Bonanni, MD,† Nicola P. Klein, MD, PhD,‡ Suzanne M. Garland, MD,§ Stan L. Block, MD,¶ Susanne K. Kjaer, MD,‖** Heather L. Sings, PhD,* Gonzalo Perez, MD,*†† Richard M. Haupt, MD, MPH,* Alfred J. Saah, MD,* Fabio Lievano, MD,* Christine Velicer, PhD,* Rosybel Drury, PhD,‡‡ and Barbara J. Kuter, PhD, MPH**

Conclusions: These results, along with the safety data from the prelicensure clinical trials, confirm that the HPV4 vaccine has a favorable safety profile. Key policy, medical and regulatory organizations around the world have independently reviewed these data and continue to recommend routine HPV vaccination.

Vichnin M, et al. Pediatrics 2015

Original Investigation

Quadrivalent HPV Vaccination and Risk of Multiple Sclerosis and Other Demyelinating Diseases of the Central Nervous System

Nikolai Madrid Scheller, MB; Henrik Svanström, MSc; Björn Pasternak, MD, PhD; Lisen Arnheim-Dahlström, PhD; Karin Sundström, MD, PhD; Katharina Fink, MD, DrMed; Anders Hviid, DrMedSci

Dinamarca – Suecia

Evaluación de niñas y mujeres de 10 a 44 años
2006 al 2013

Población estudiada: 3.983.824

Vacunadas: 780.082

Con 3 dosis: 467.812

Scheller, et al. JAMA 2015

SEGURIDAD VACUNAS VPH

NO asociación a esclerosis múltiple

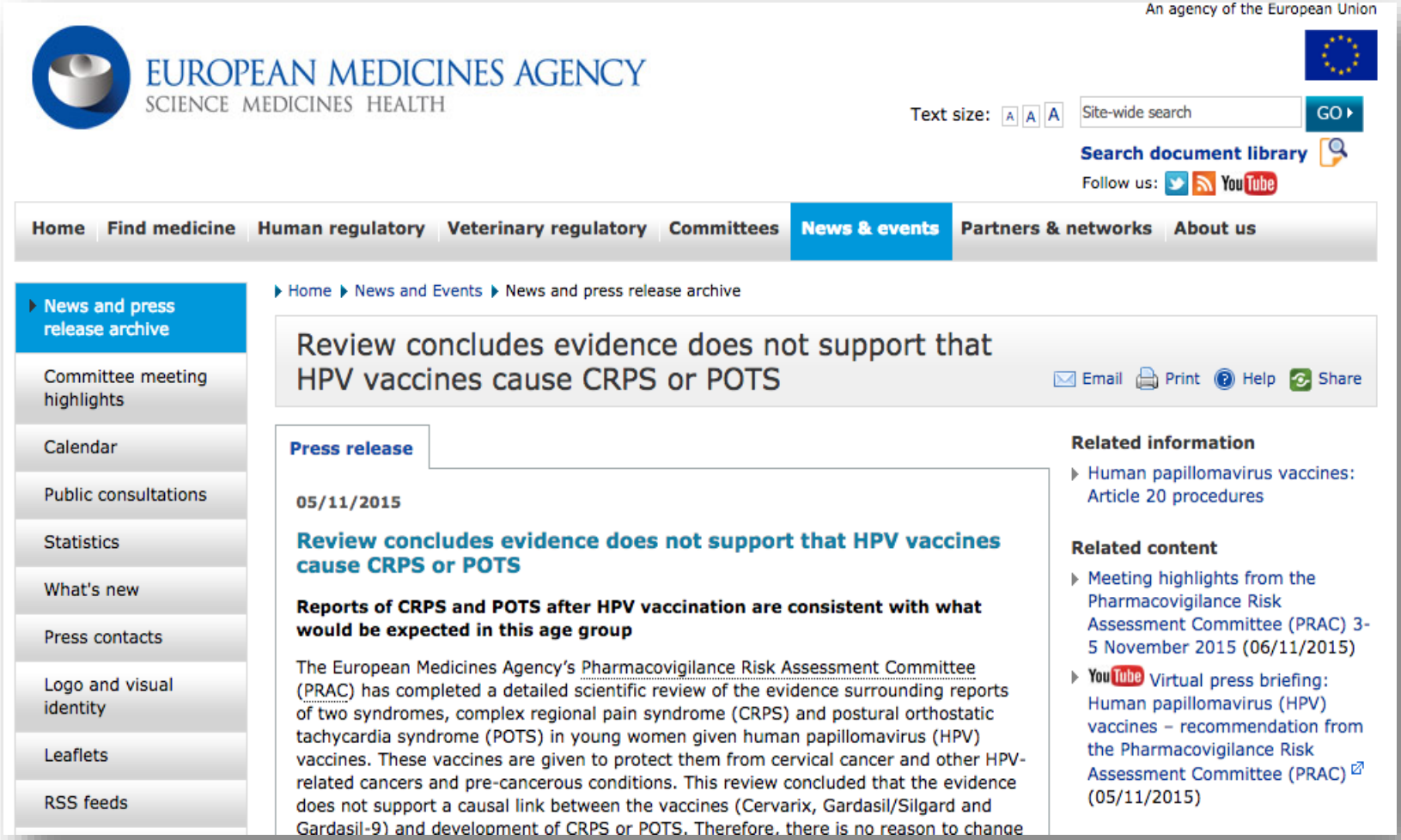
u otras enfermedades desmielinizantes

Outcome	Unvaccinated			Vaccinated			
	No. of Cases	Person-Years	Crude Incidence Rate (95% CI), Events/100 000 Person-Years	No. of Cases	Person-Years		
Other Demyelinating Diseases							
Main analysis	3154	19 546 190	16.14 (15.58				
Analysis by age, y							
10-29	1175						
30-44						0.75 (0.31-1.80)	.51[c]
					774 095	9.43 (7.50-11.86)	1.10 (0.84-1.44)	.14[c]
			13.41)	17	419 496	4.05 (2.52-6.52)	0.73 (0.44-1.20)	
		19 546 190[b]	16.14 (15.58-16.71)[b]	54	595 804	9.06 (6.94-11.83)	1.13 (0.85-1.51)	
				11	224 930	4.89 (2.71-8.83)	0.73 (0.40-1.33)	
365-729				25	372 857	6.71 (4.53-9.92)	0.91 (0.61-1.37)	
>729				56	565 106	9.91 (7.63-12.88)	1.01 (0.76-1.34)	

CONCLUSIONS AND RELEVANCE In this study with nationwide coverage of 2 Scandinavian countries, qHPV vaccination was not associated with the development of multiple sclerosis or other demyelinating diseases. These findings do not support concerns about a causal relationship between qHPV vaccination and demyelinating diseases.

Scheller, et al. JAMA 2015

SEGURIDAD VACUNAS VPH



An agency of the European Union

EUROPEAN MEDICINES AGENCY
SCIENCE MEDICINES HEALTH

Text size: A A A | Site-wide search | GO

Search document library

Follow us:

Home | Find medicine | Human regulatory | Veterinary regulatory | Committees | News & events | Partners & networks | About us

- News and press release archive
- Committee meeting highlights
- Calendar
- Public consultations
- Statistics
- What's new
- Press contacts
- Logo and visual identity
- Leaflets
- RSS feeds

Home ▸ News and Events ▸ News and press release archive

Review concludes evidence does not support that HPV vaccines cause CRPS or POTS

Email | Print | Help | Share

Press release

05/11/2015

Review concludes evidence does not support that HPV vaccines cause CRPS or POTS

Reports of CRPS and POTS after HPV vaccination are consistent with what would be expected in this age group

The European Medicines Agency's Pharmacovigilance Risk Assessment Committee (PRAC) has completed a detailed scientific review of the evidence surrounding reports of two syndromes, complex regional pain syndrome (CRPS) and postural orthostatic tachycardia syndrome (POTS) in young women given human papillomavirus (HPV) vaccines. These vaccines are given to protect them from cervical cancer and other HPV-related cancers and pre-cancerous conditions. This review concluded that the evidence does not support a causal link between the vaccines (Cervarix, Gardasil/Silgard and Gardasil-9) and development of CRPS or POTS. Therefore, there is no reason to change

Related information

- Human papillomavirus vaccines: Article 20 procedures

Related content

- Meeting highlights from the Pharmacovigilance Risk Assessment Committee (PRAC) 3-5 November 2015 (06/11/2015)
- Virtual press briefing: Human papillomavirus (HPV) vaccines – recommendation from the Pharmacovigilance Risk Assessment Committee (PRAC) (05/11/2015)

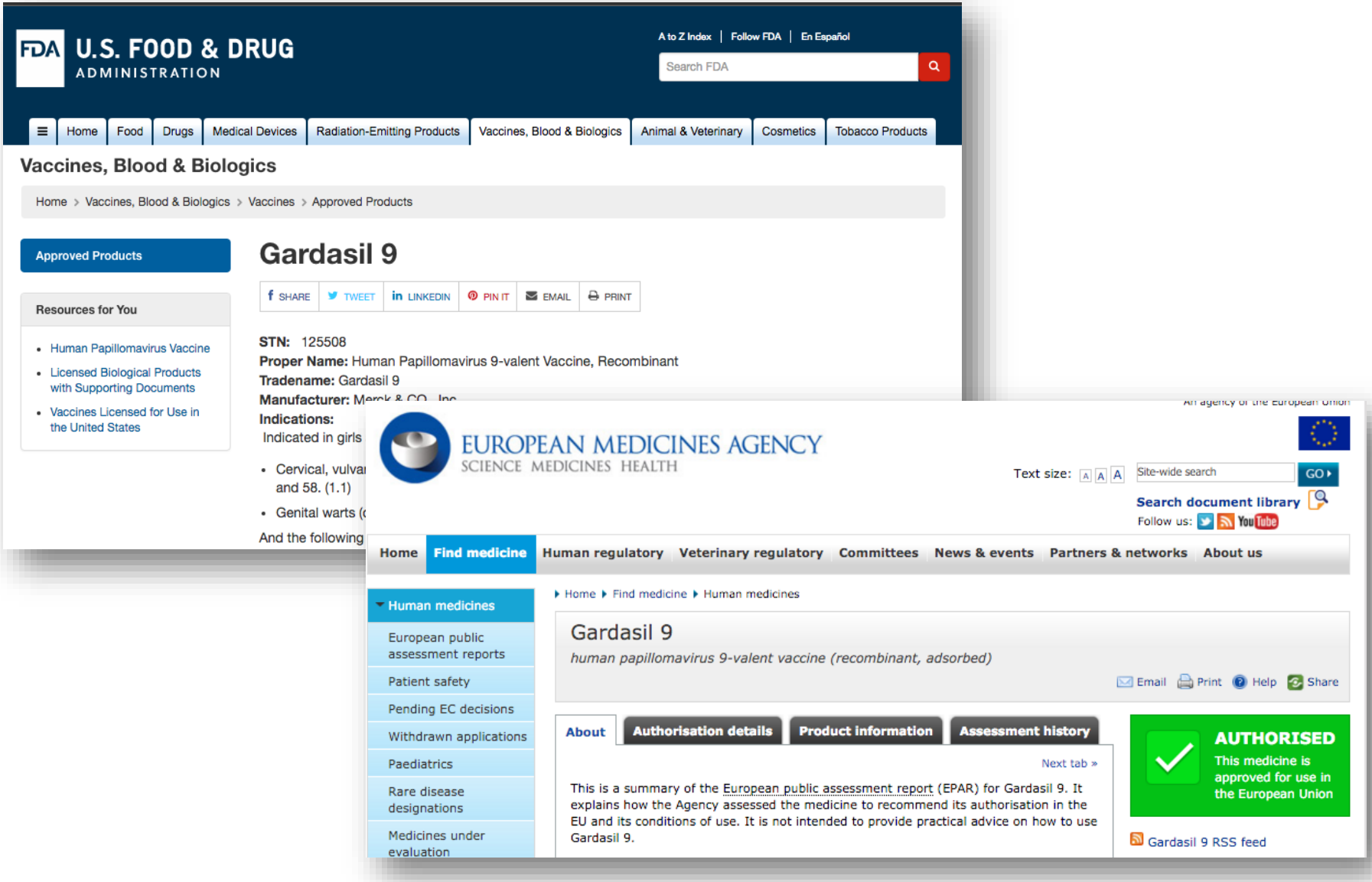
Disponible en:
http://www.ema.europa.eu/ema/index.jsp?curl=pages/news_and_events/news/2015/11/news_detail_002429.jsp&mid=WC0b01ac058004d5c1

Box 2
Recommendations and key strategies for health care providers to improve HPV vaccination rates

- Recommend the HPV vaccine with the same strength and conviction used to recommend other adolescent vaccines. A recommendation by an HCP is the most important reason that adolescents get the HPV vaccine.
- Health care providers should recommend the vaccine with a presumptive, rather than participatory style to improve parental acceptance of the vaccine
- Emphasize that the HPV vaccine prevents cancer
- Health care providers should educate themselves on HPV and HPV vaccines
- Address potential barriers through key elements of HPV education including: (1) provide sufficient information to parents on the disease and cancer prevention, (2) outline the rationale for vaccinating ages 11 to 12, (3) discuss safety and efficacy of the vaccine, (4) remind parents/patients of the 3-shot series, (5) address system barriers (eg, cost), and (6) highlight the benefit of male vaccination.
- Inform colleagues and staff to ensure that everyone delivers the same messages on HPV
- Communicate vaccination benefits to parents and adolescents at every opportunity
- Make vaccination procedures routine and focus on ways to reduce missed opportunities

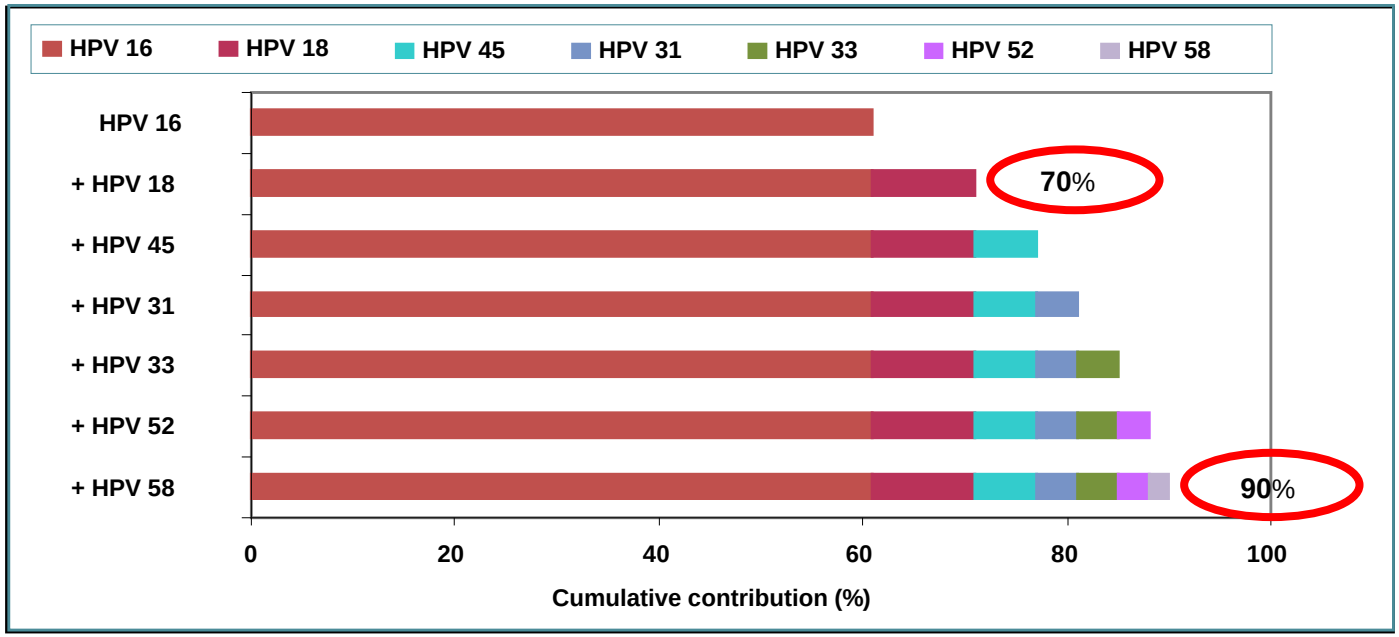
Adapted from National Foundation for Infectious Diseases. Call to action: HPV vaccination as a public health priority. 2014. Available at: http://www.adolescentvaccination.org/hpv-cta. Accessed July 27, 2015.

Gardasil 9 : autorizada



VPH 9: aumento protección

Contribución de los genotipos VPH 6,11,16,18,31,33,45,52,58 en cánceres anogenitales femeninos (estudio realizado en el ICO)



La adición de los tipos VPH 31-33-45-52-58 a las vacunas actuales podría prevenir al menos el 90% de los cánceres anogenitales femeninos positivos a VPH

Serrano B, et al. EUROGIN 2015

VPH 9-valente en previamente vacunados

Table 1
Scenarios and proposed approaches, for girls 9–14 years of age.

Scenario	Month 0	Month 2	Month 6	Month 12	Month 18	Expected protection*
Sequential doses administration						
A	2vHPV		2vHPV			2 types
	2vHPV		2vHPV	9vHPV	9vHPV	2 types and likely protection for the 7 extra types
	4vHPV		4vHPV			4 types
	4vHPV		4vHPV	9vHPV	9vHPV	4 types and likely protection for the 5 extra types
B	2vHPV	2vHPV				No evidence
	2vHPV	2vHPV	9vHPV			2 types
	2vHPV	2vHPV	9vHPV	9vHPV		2 types and likely protection for the 7 extra types
	4vHPV	4vHPV				Incomplete
	4vHPV	4vHPV	9vHPV			4 types
	4vHPV	4vHPV	9vHPV	9vHPV		4 types and likely protection for the 5 extra types
C	2vHPV					No evidence
	2vHPV		9vHPV			2 types
	2vHPV		9vHPV	9vHPV		2 types and likely protection for the 7 extra types
	4vHPV					No evidence
	4vHPV		9vHPV			4 types
	4vHPV		9vHPV	9vHPV		4 types and likely protection for the 5 extra types
Revaccination						
D	2vHPV	2vHPV	2vHPV			2 types
	2vHPV	2vHPV	2vHPV	9vHPV	9vHPV	2 types and likely protection for the 7 extra types
	4vHPV	4vHPV	4vHPV			4 types
	4vHPV	4vHPV	4vHPV	9vHPV	9vHPV	4 types and likely protection for the 5 extra types

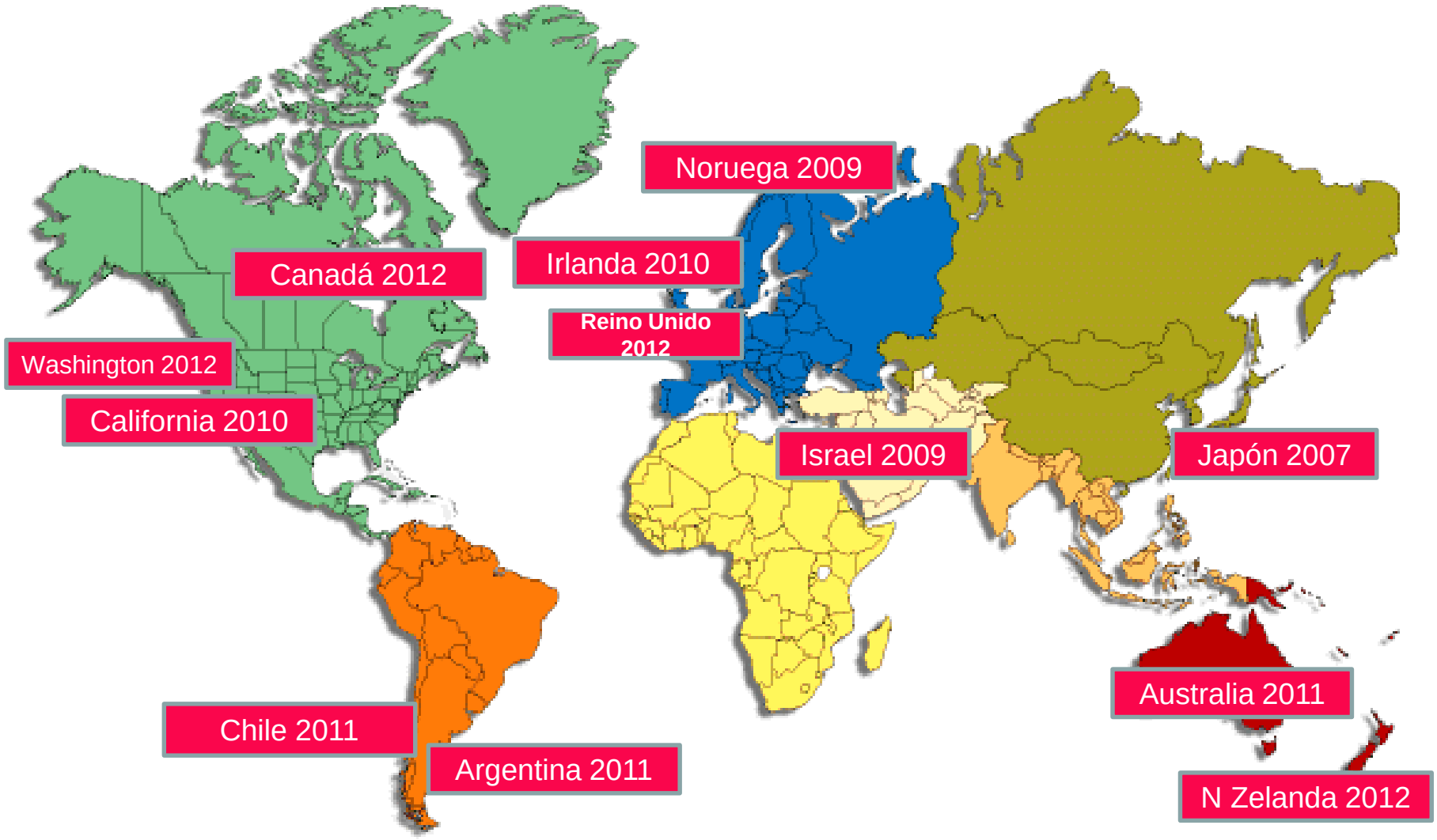
: already received : additional

AÑADIR
2 DOSIS
VPH-9V

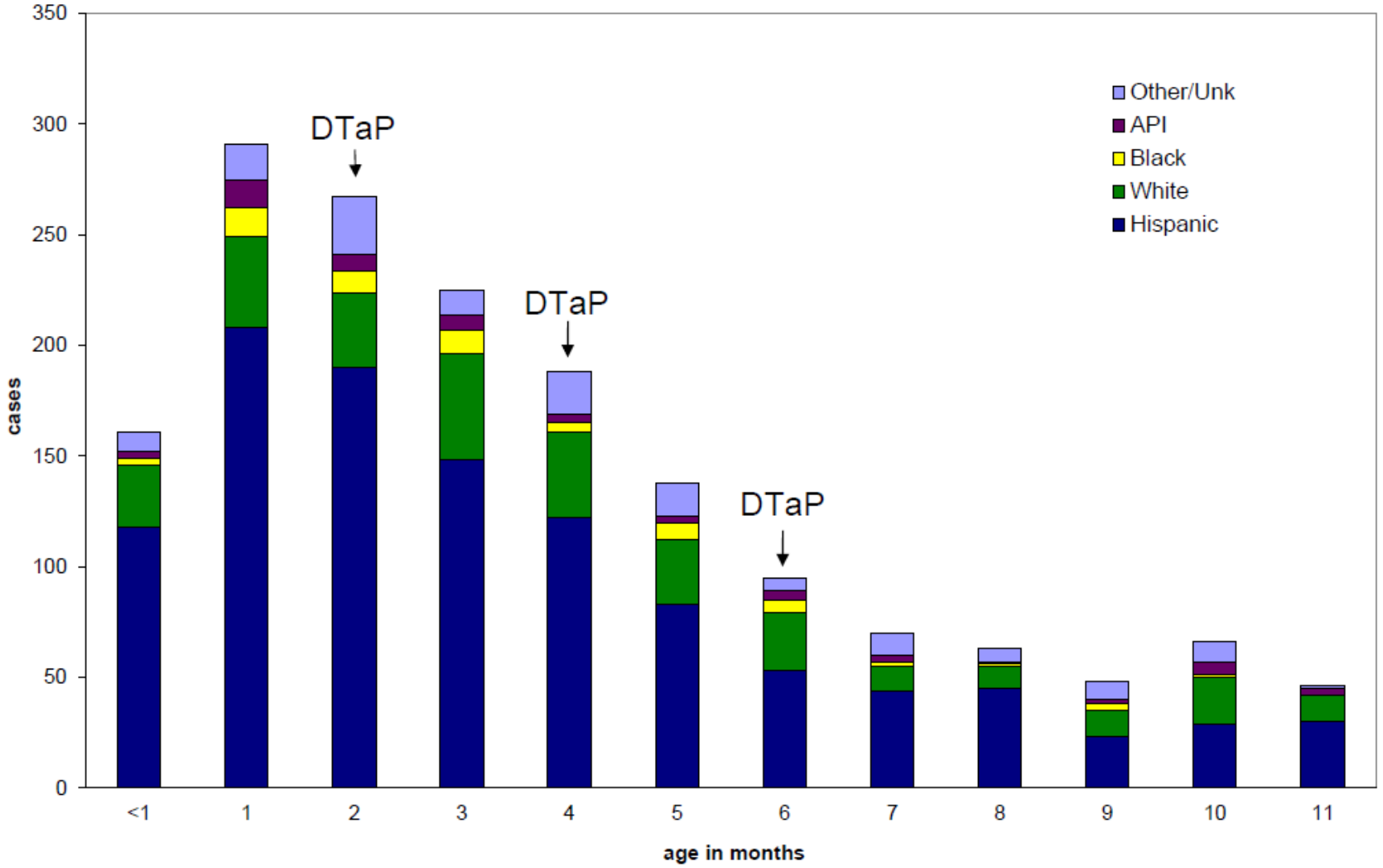
Van Damme P, et al. Vaccine 2016

Vacunación frente a tosferina en embarazadas

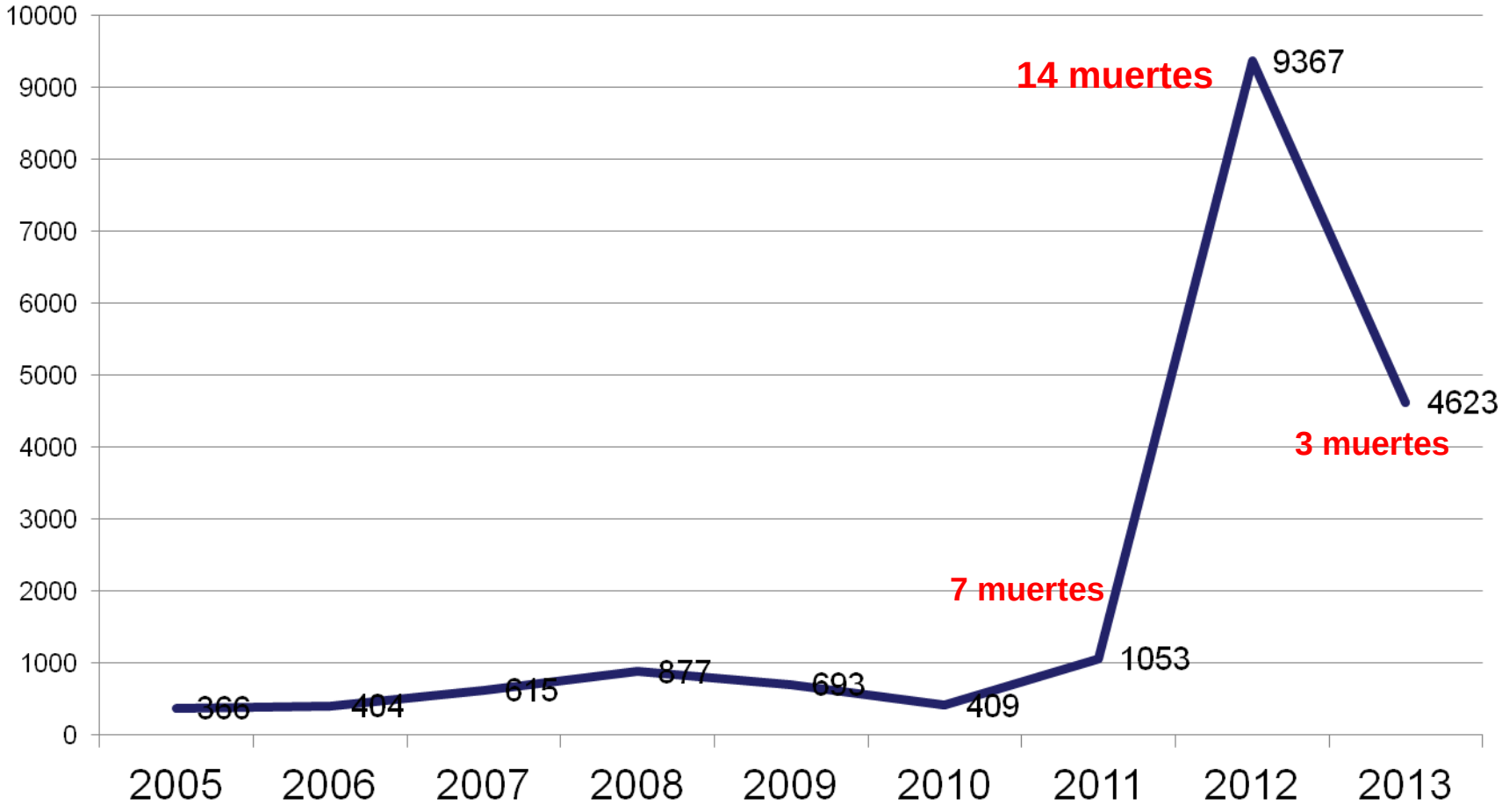
Brotes de tosferina en el mundo



Casos de tosferina por edad (California 2010)



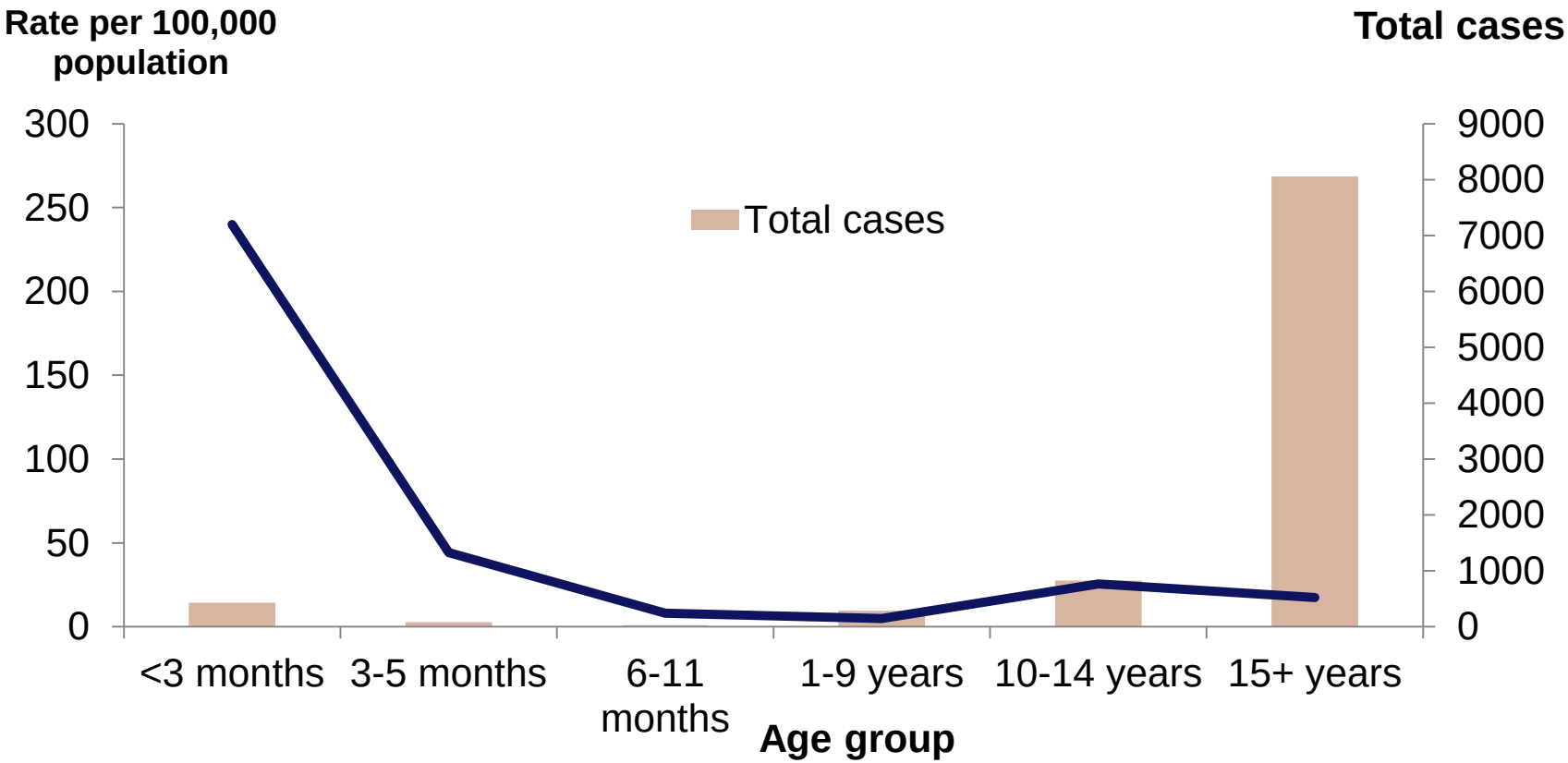
Casos de tosferina demostrada por laboratorio en Inglaterra y Gales



Health Protection Agency

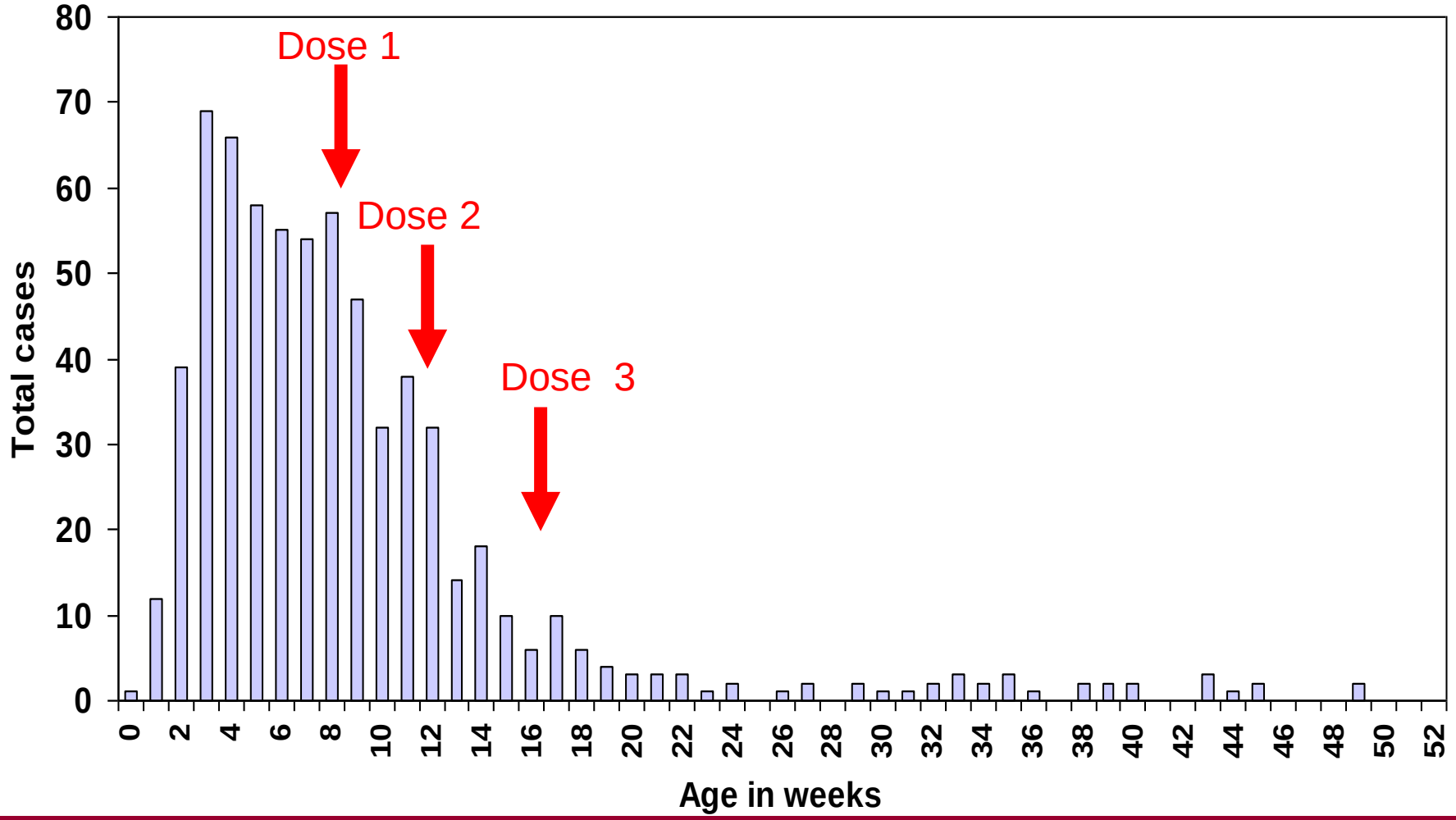
Public Health England

Age distribution of laboratory confirmed pertussis cases and rate per 100,000 England and Wales 2012

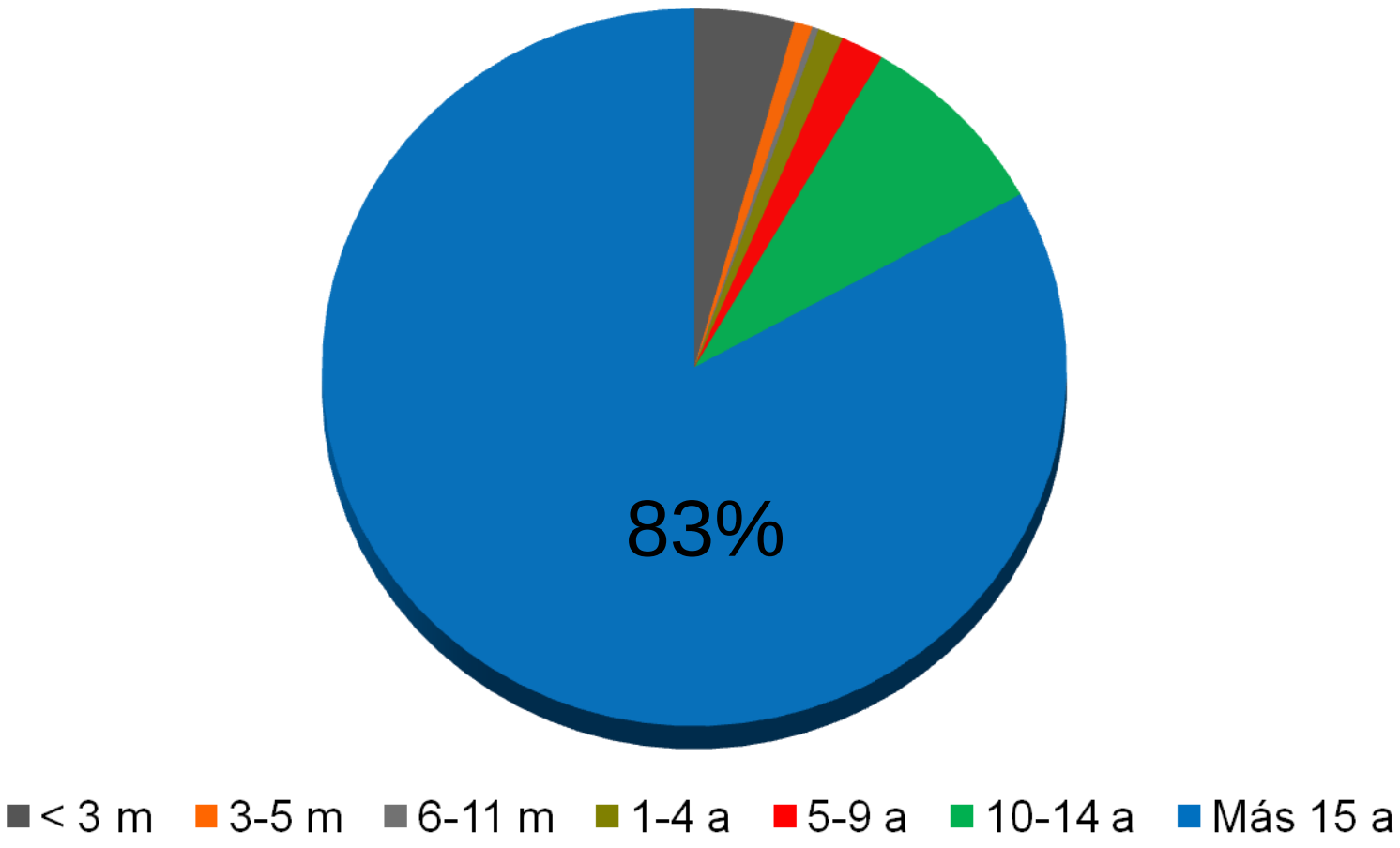


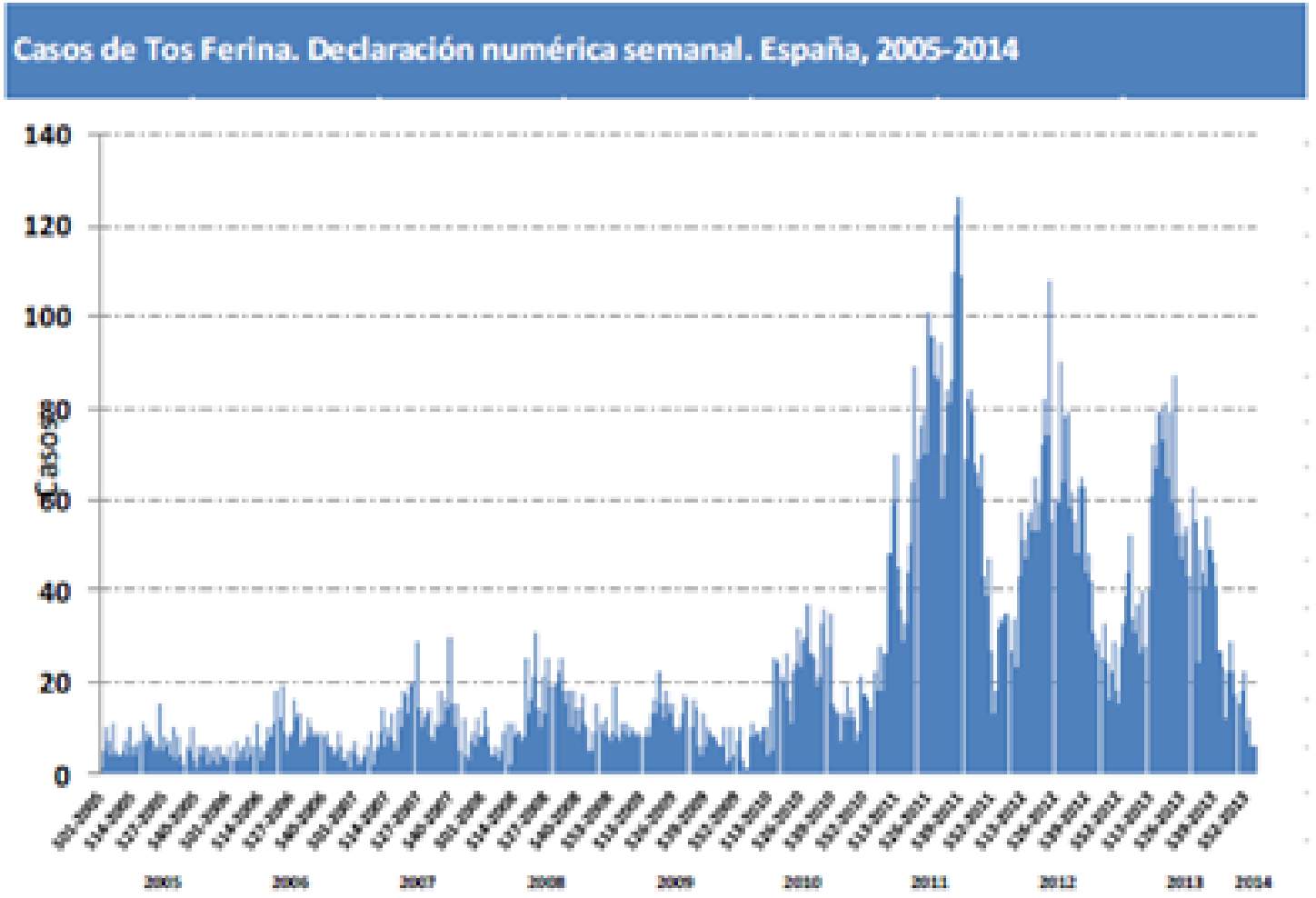
Public Health England

Confirmed cases in infants under 1 year, by week of age at onset* (2011-end August 2012) England and Wales



Casos de tosferina por edad en Inglaterra y Gales





Boletín Epidemiológico Semanal. 4 febrero 2014

La tosferina ha resurgido y afecta a todas las edades

Las hospitalizaciones y muertes afectan a los lactantes < 6 meses (3 meses)

¿Por qué el resurgir de la tosferina?

¿Quién contagia a los lactantes?

Fuentes de infección en 164 niños hospitalizados con tos ferina

	Nº total	Nº personas fuente infección	% (IC 95%)
Madre	164	52	38 (30-46)
Padre	155	23	17 (11-24)
Otro adulto	28	6	4 (2-9)
14-19 años	12	0	0 (0-2)
9-13 años	27	11	8 (4-13)
5-8 años	85	20	15 (9-21)
1-4 años	92	25	18 (12-25)
0 años (gem.)	1	0	0 (0-2)

Greef SC, et al. Clin Infect Dis 2010; 50: 1339-1345.

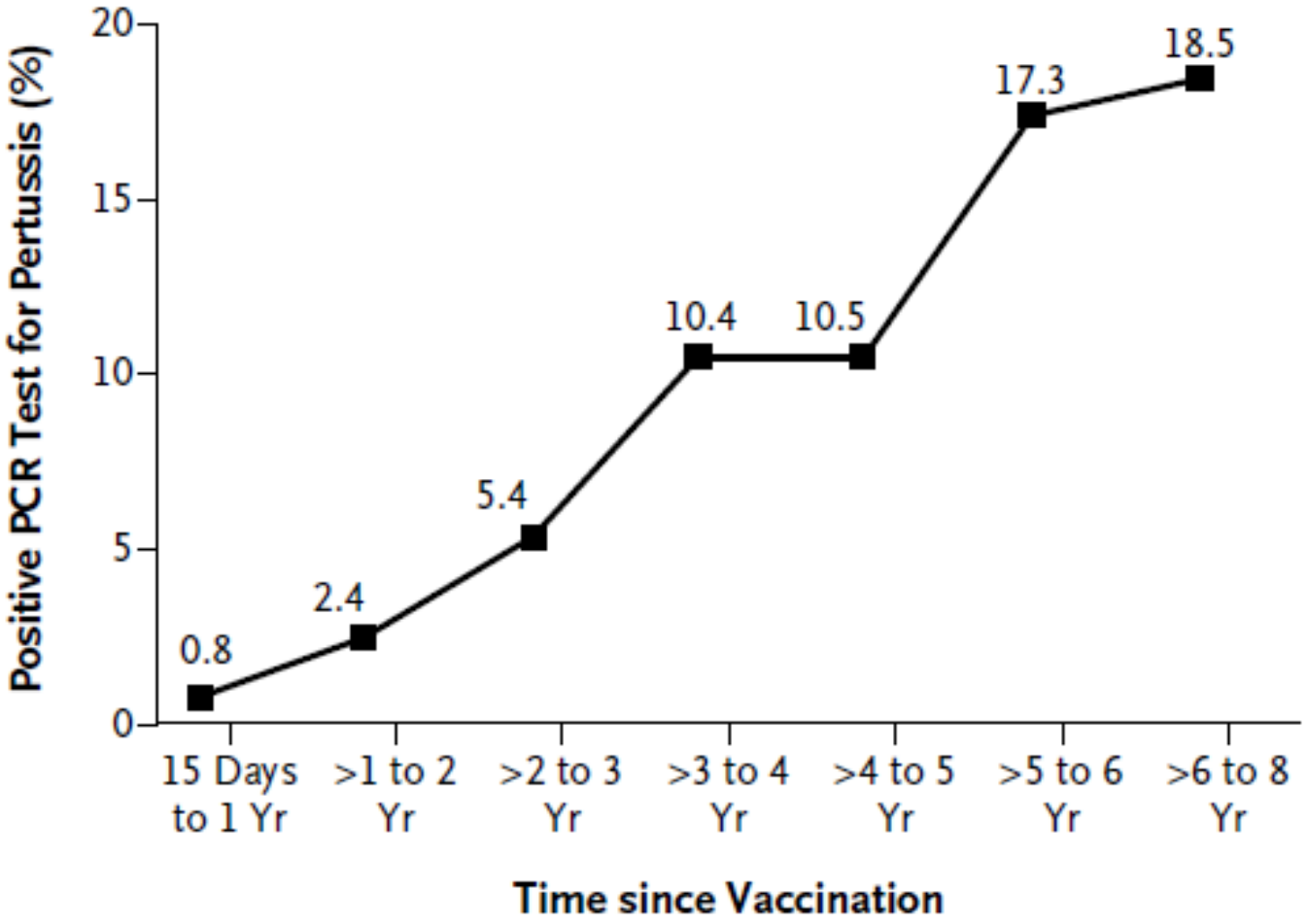
Pérdida de inmunidad a lo largo del tiempo (casos y controles)

Tiempo desde la 5ª dosis de DTPa (meses)	Casos	Controles	OR (IC 95%)
< 12	19	354	0,02 (0,01-0,004)
12-23	51	391	0,05 (0,02-0,09)
24-35	79	366	0,08 (0,04-0,13)
36-47	108	304	0,13 (0,07-0,24)
48-59	141	294	0,17 (0,09-0,31)
≥ 60	231	288	0,29 (0,15-0,54)

Misegades LK, et al. JAMA 2012; 308: 2126-2132

The NEW ENGLAND JOURNAL of MEDICINE

Waning Protection after Fifth Dose of Acellular Pertussis Vaccine in Children



Nlein Np, et al. N Engl J Med 2012, 367: 1012-9

Public Health England

How can we protect children too young to be vaccinated against pertussis?

- In October 2012, the Department of Health recommended that pregnant women receive one dose of pertussis containing vaccine from 28-38 weeks
- **This recommendation was updated and from April 2016, the vaccine should now be offered from week 16 of pregnancy (ideally around the time of the foetal anomaly scan at 20 weeks)**
- The aim is to **boost** antibodies in vaccinated women during pregnancy so that pertussis antibodies are passed from mother to baby
- This is considered the **best** way to provide passive protection to infants in the first weeks of life and offers women a **safe way to protect their baby** against this serious disease

Edita y distribuye:
© MINISTERIO DE SANIDAD, SERVICIOS SOCIALES E IGUALDAD
CENTRO DE PUBLICACIONES

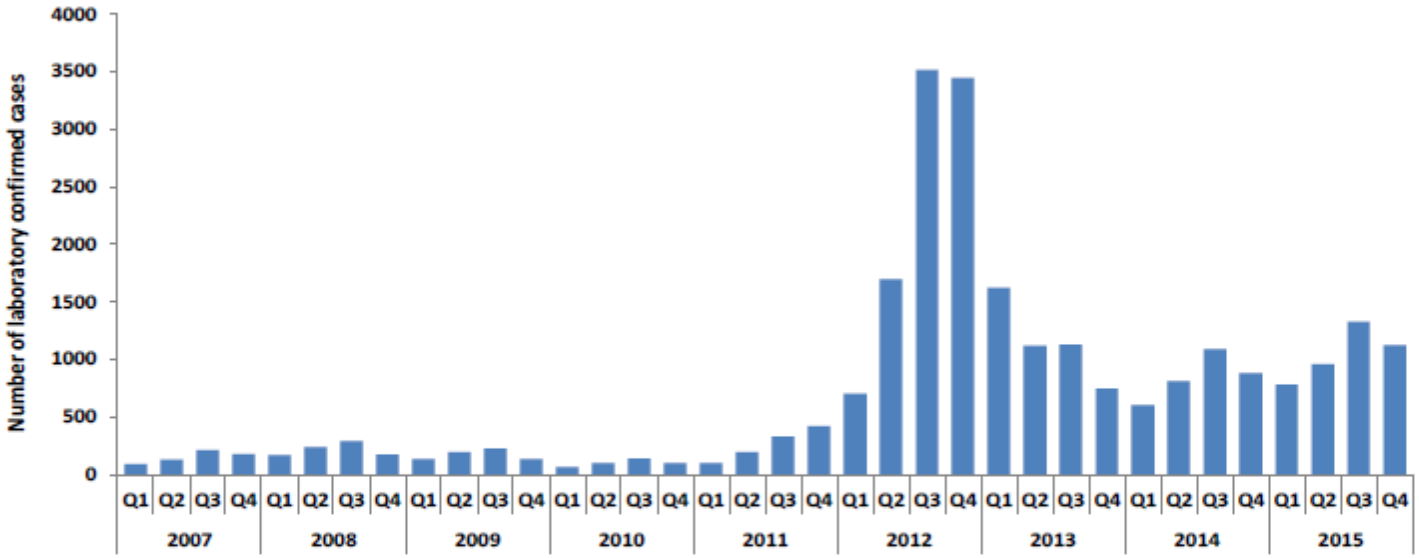
Adenda Actualización en «Revisión del programa de vacunación frente a tos ferina en España»

Junio de 2015

Durante la elaboración de esta adenda se han realizado recomendaciones de adaptación del calendario como consecuencia de problemas de suministro de vacunas con componentes de tos ferina, incluida dTpa. Este hecho ha cambiado el contexto y la perspectiva para establecer recomendaciones.

Se recomienda la puesta en marcha de esta estrategia de vacunación para el control de la enfermedad grave y la mortalidad en los niños menores de 3 meses de edad mediante la administración de vacuna dTpa entre las semanas 27-28 y 36 de gestación, e idealmente entre las 28 y 32 semanas de gestación. La vacuna se administrará en cada embarazo independientemente de su estado previo de vacunación.

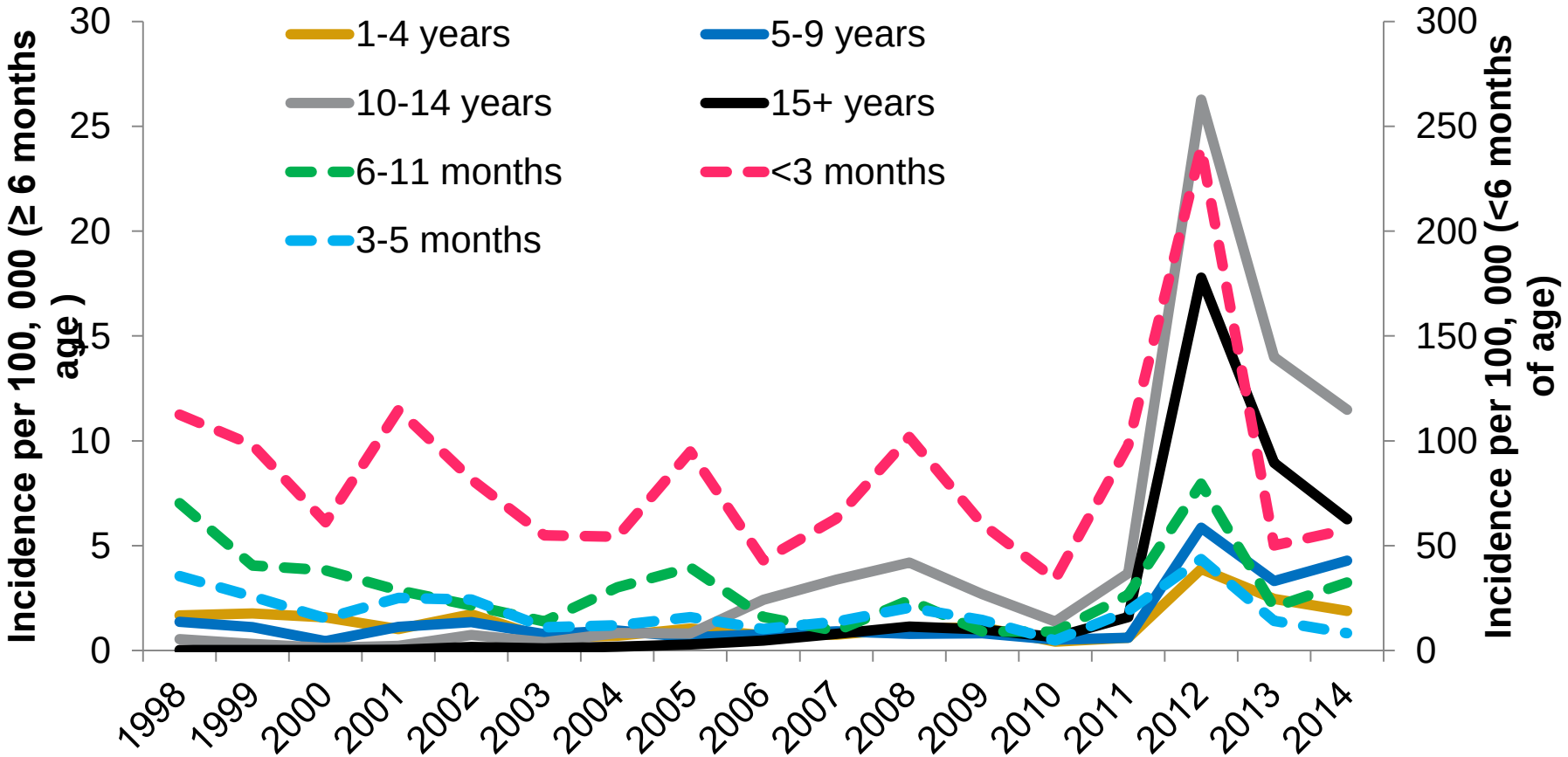
Figure 1: Laboratory confirmed cases of Pertussis infection by year and quarter, England: 2007 to 2015*



*2015 are provisional data

Public Health England

Annual pertussis incidence in England



Effectiveness of maternal pertussis vaccination in England: an observational study

Gayatri Amirthalingam, Nick Andrews, Helen Campbell, Sonia Ribeiro, Edna Kara, Katherine Donegan, Norman K Fry, Elizabeth Miller, Mary Ramsay

91% (84%-95%) en niños menores de 3 meses

Effectiveness of Prenatal Versus Postpartum Tetanus, Diphtheria, and Acellular Pertussis Vaccination in Preventing Infant Pertussis

Kathleen Winter,[1,2] Steve Nickell,[1] Michael Powell,[1] and Kathleen Harriman[1]

California: 85% (33%-98%)

Effectiveness of Prenatal Tetanus, Diphtheria, and Acellular Pertussis Vaccination on Pertussis Severity in Infants

Kathleen Winter,[1,3] James D. Cherry,[2] and Kathleen Harriman[1]

Riesgo hospitalización: 0,47 (0.35-0.63)

Amirthalingam G, et al. Lancet 2014; 384: 1521-28
Winter K, et al. CID 2017; 64: 3-8
Winter K, et al. CID 2017; 3-8

Conclusiones

- Perseguir la vacunación de todas las niñas (recomendar con firmeza)
- Vacunación de inmunodeprimidas ¿y varones?
- Vacunación frente a tosferina en embarazadas: muy efectiva
- Carga global en niños

Original Investigation

Evaluation of the Association of Maternal Pertussis Vaccination With Obstetric Events and Birth Outcomes

Table 2. Rates of Adverse Gestational and Birth Outcomes and Relative Risks Associated With Receipt of Pertussis Vaccine (Tdap) During Pregnancy

Outcome	No. (%)		Risk Ratios (95% CI)		*P* Value
	Tdap Exposed	Unexposed	Unadjusted	Adjusted[a]	
Full cohort	26 229	97 265			
Chorioamnionitis	1596 (6.1)	5329 (5.5)	1.11 (1.05-1.17)	1.19 (1.13-1.26)	<.001
Preterm delivery, 37 wk	1527 (6.3)	7544 (7.8)	1.01 (0.95-1.06)	1.03 (0.97-1.09)	.33
Small for gestational age, <10th percentile	2214 (8.4)	8086 (8.3)	1.02 (0.97-1.06)	1.00 (0.96-1.06)	.68
Vaccinated at <20 wk gestation	6083	97 265			
Hypertensive disorders	497 (8.2)	7736 (8.0)	1.03 (0.94-1.12)	1.09 (0.99-1.20)	.05
Vaccinated at 27-≤36 wk gestation	11 351	97 265			
Chorioamnionitis	637 (5.6)	5329 (5.5)	1.02 (0.95-1.11)	1.11 (1.03-1.21)	.009
Preterm delivery, <37 wk	602 (5.3)	7544 (7.8)	0.88 (0.81-0.96)	0.88 (0.80-0.95)	.002
Small for gestational age, <10th percentile	978 (8.6)	8086 (8.3)	1.04 (0.97-1.10)	1.03 (0.96-1.10)	.40

JAMA. 2014;312(18):1897-1904. doi:10.1001/jama.2014.14825