

The public health benefits of immunisation

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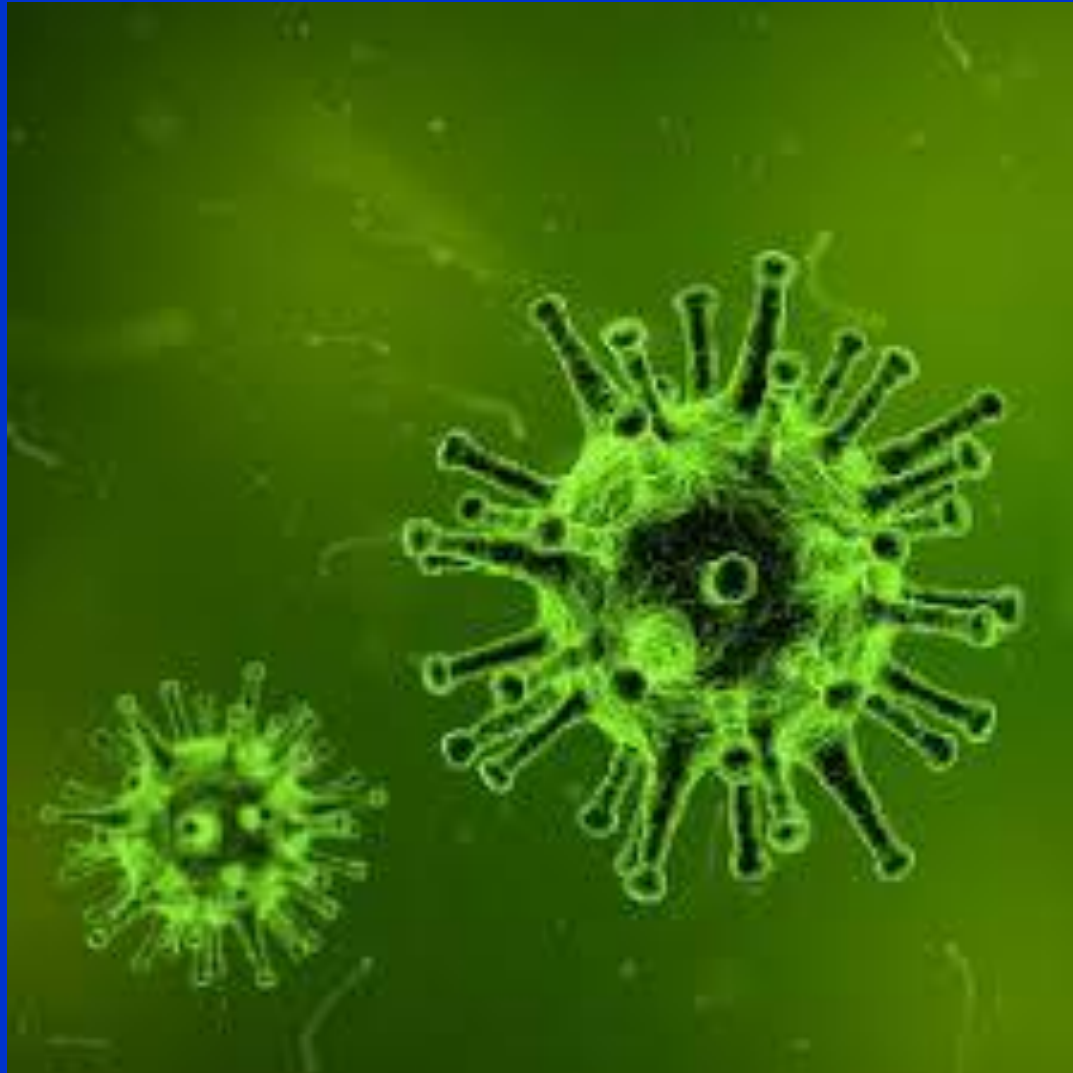
Context

- **Immunisation** is one of the most cost-effective interventions in preventing disease, and is said to be second only to clean drinking water in this regard.

What makes a good vaccine?

- Immunogenic – produces an immune response
- Prevents illness - it works
- Safe – minimal side effects
- Cheap and cost effective
- Acceptable and accessible to patients

Appsam



Herd Immunity

- <http://www.immunisationscotland.org.uk/why-immunise/benefits-for-all.aspx>

Immunisation

- What is the current uptake in Scotland?

Table 2: Primary and Booster Immunisation Uptake Rates by 24 months of age

Evaluation Quarter: 1 April to 30 June 2017	Born 1 April to 30 June 2015									
	NHS Board of residence ¹	Cohort ²	% completed primary and booster course by 24 months							
			DTP/Pol/Hib		MMR1		Hib/MenC		PCVB	
			No.	%	No.	%	No.	%	No.	%
NHS Ayrshire and Arran	892	877	98.3	852	95.5	856	96.0	856	96.0	
NHS Borders	245	240	98.0	233	95.1	237	96.7	236	96.3	
NHS Dumfries & Galloway	366	348	95.1	342	93.4	344	94.0	344	94.0	
NHS Fife	979	959	98.0	914	93.4	920	94.0	910	93.0	
NHS Forth Valley	761	741	97.4	723	95.0	729	95.8	725	95.3	
NHS Grampian	1,589	1,546	97.3	1,484	93.4	1,482	93.3	1,472	92.6	
NHS Greater Glasgow & Clyde	3,202	3,125	97.6	3,053	95.3	3,060	95.6	3,060	95.6	
NHS Highland	705	680	96.5	650	92.2	655	92.9	655	92.9	
NHS Lanarkshire	1,741	1,710	98.2	1,676	96.3	1,695	97.4	1,696	97.4	
NHS Lothian	2,407	2,353	97.8	2,284	94.9	2,290	95.1	2,271	94.3	
NHS Orkney ³	67	63	94.0	62	92.5	62	92.5	62	92.5	
NHS Shetland ³	55	50	90.9	48	87.3	49	89.1	49	89.1	
NHS Tayside	1,031	1,021	99.0	989	95.9	998	96.8	999	96.9	
NHS Western Isles ³	62	59	95.2	56	90.3	56	90.3	57	91.9	
NHS Board unknown	1	
Scotland	14,103	13,773	97.7	13,367	94.8	13,434	95.3	13,393	95.0	

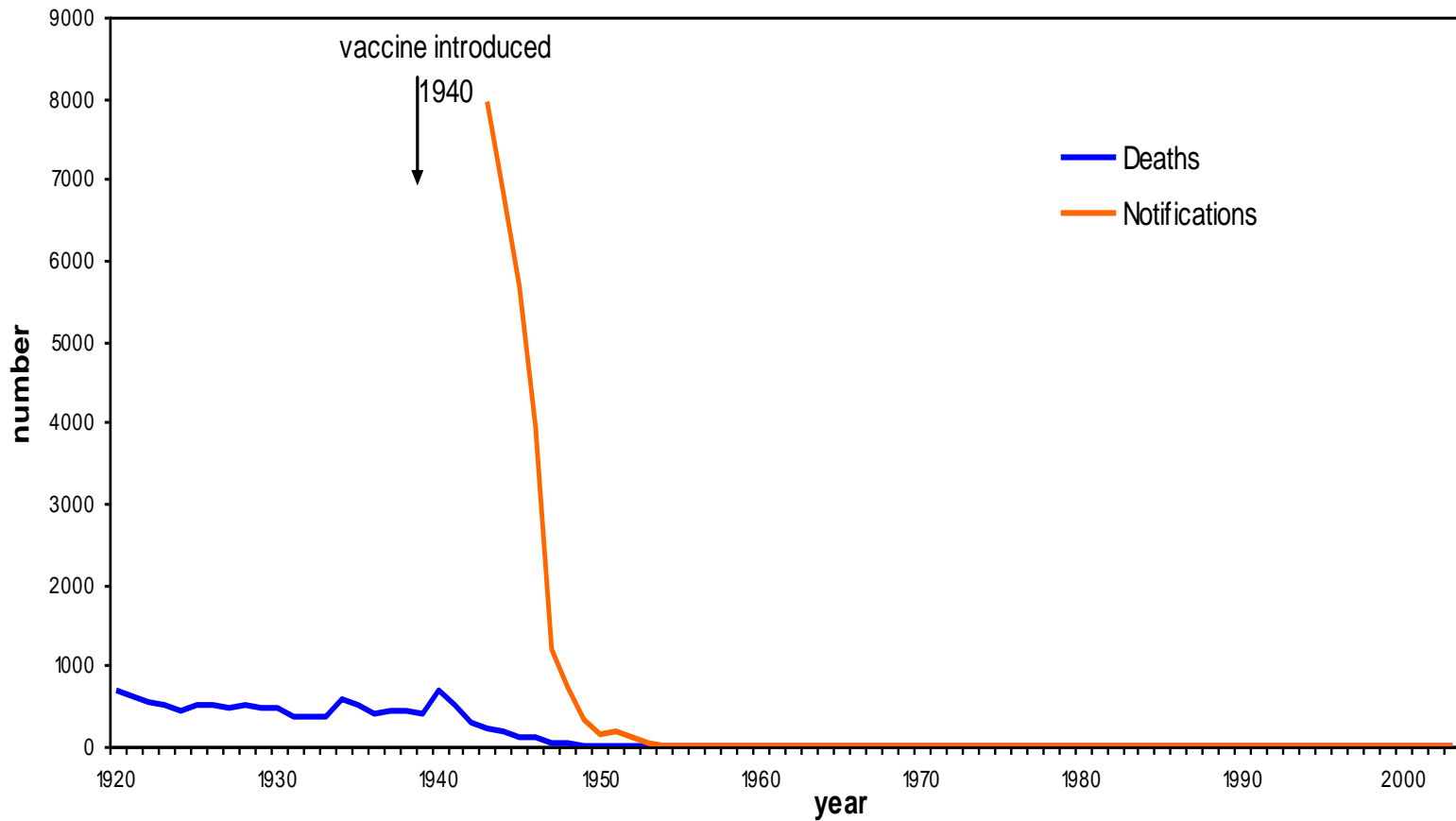
Source: SIRS

Date: 14 August
2017

Immunisation

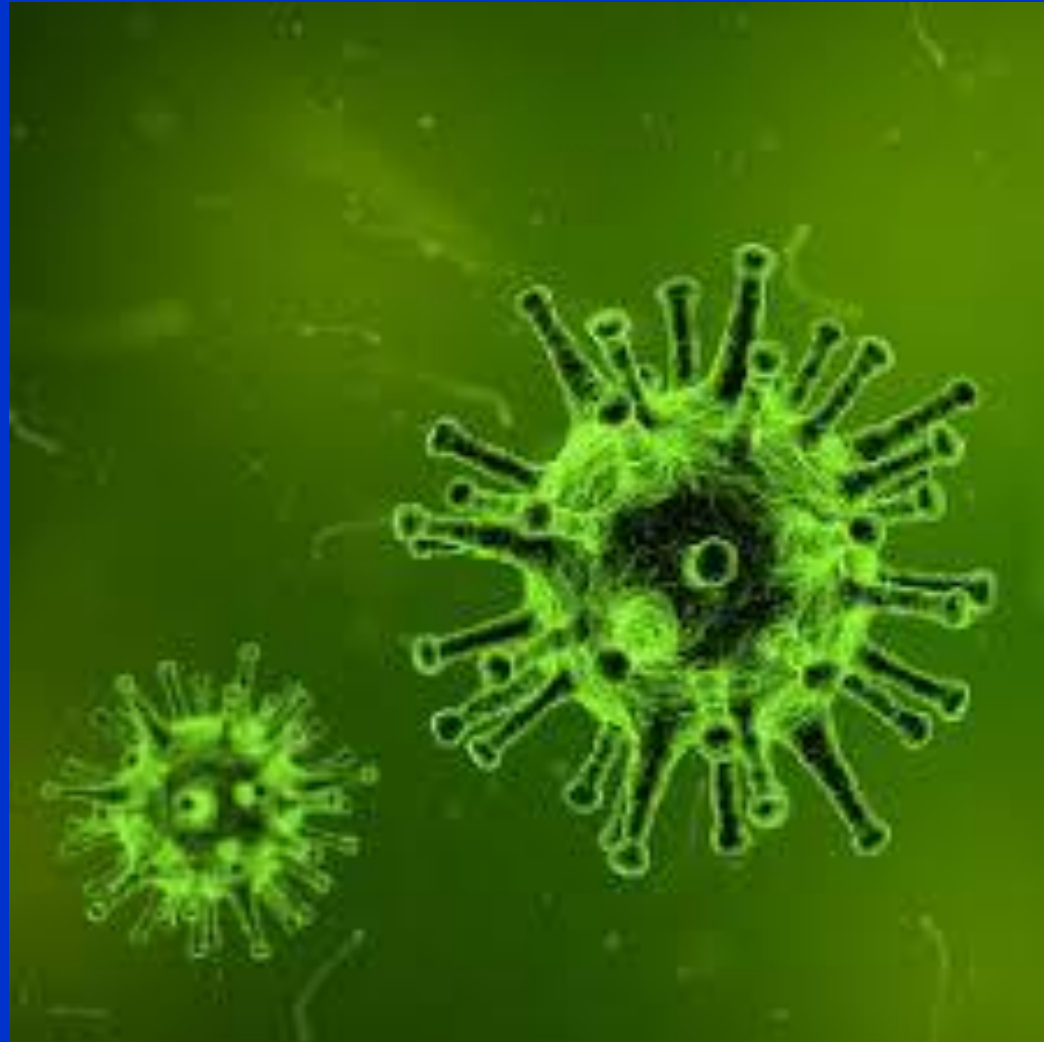
- Do they work?
- How do we know?

Diphtheria notifications and deaths, Scotland (1920-2004)



Source: Annual Reports of the Registrar General of Scotland; Information and Statistics Division

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Appsam 2

Return of the Appsam

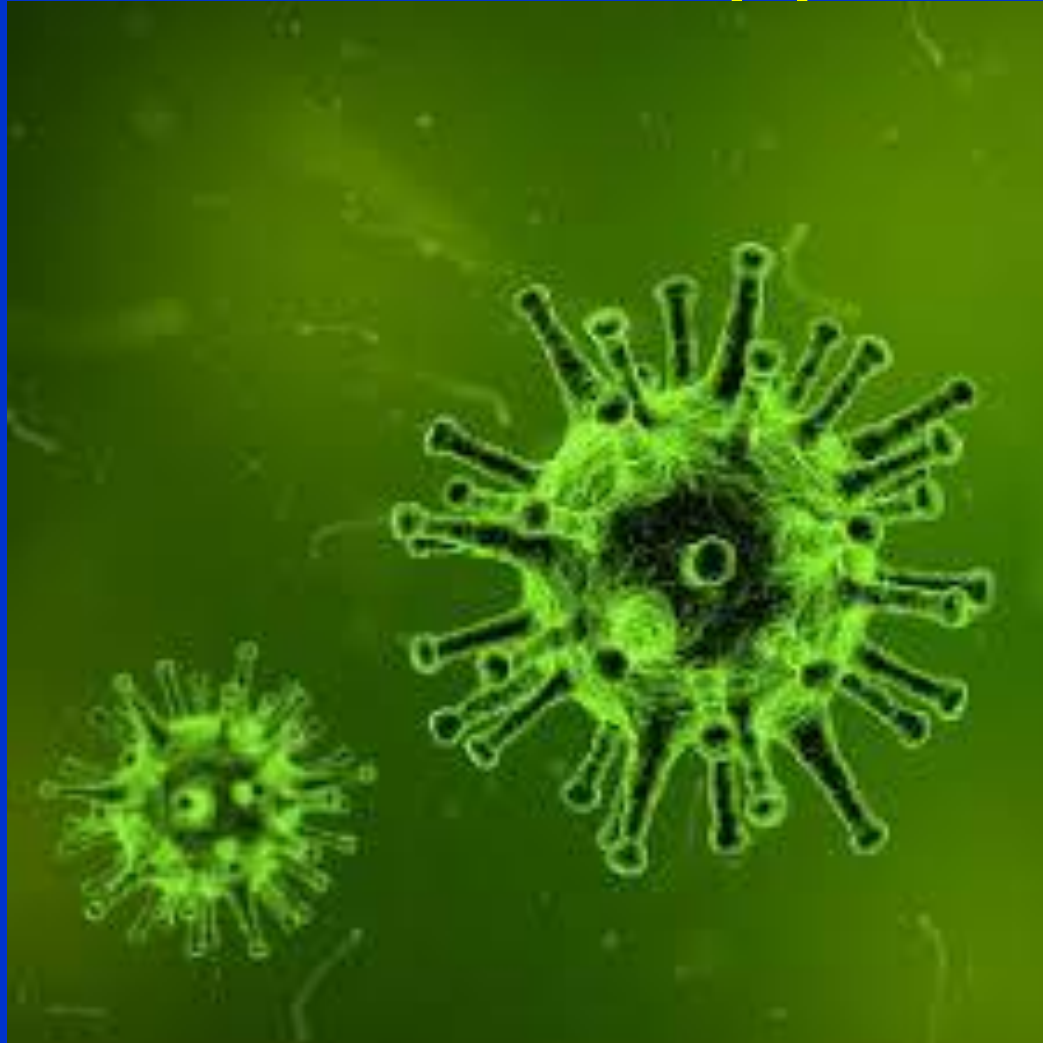
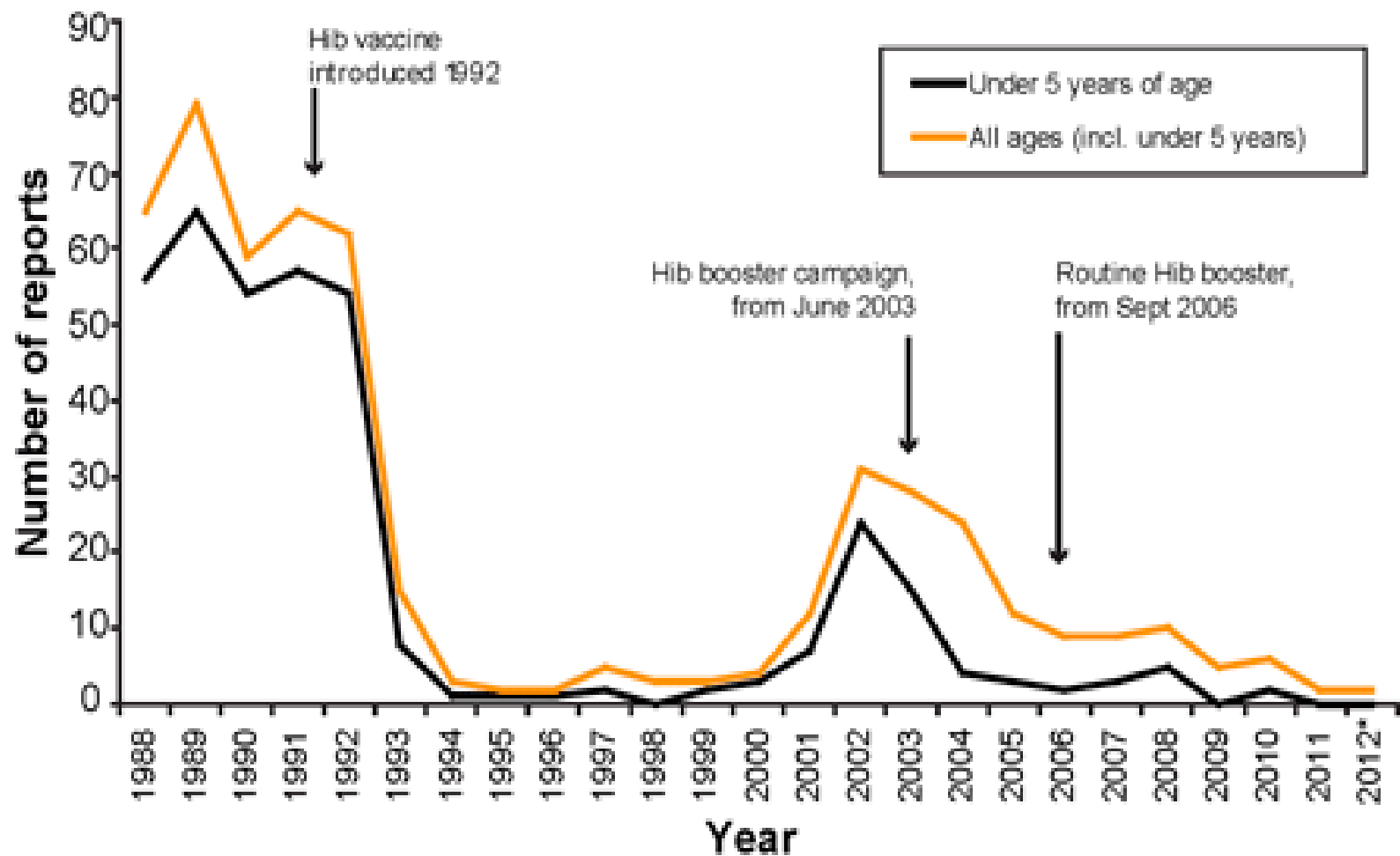


FIGURE 9: Laboratory reports of invasive Hib disease in Scotland 1988 to 2012*



*data provisional

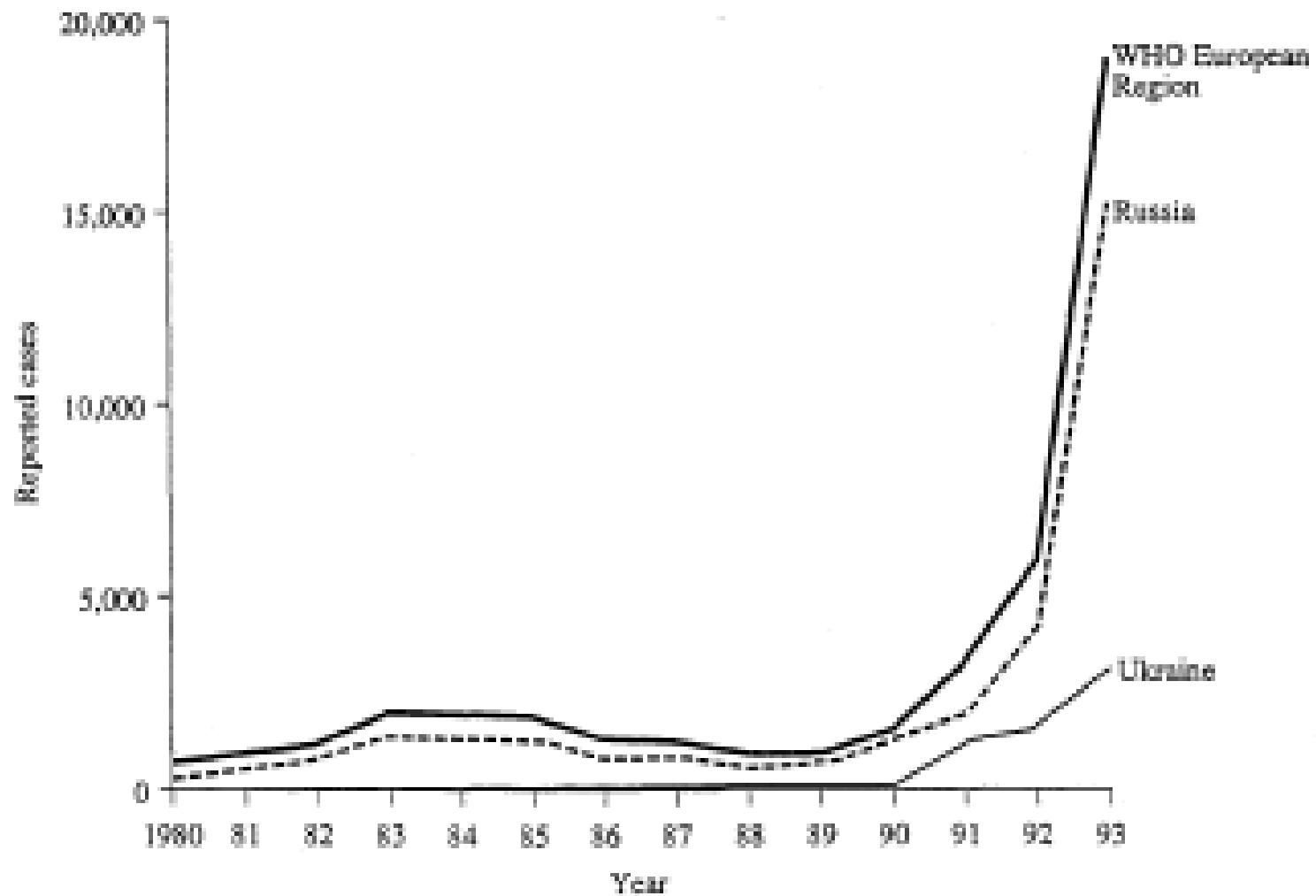
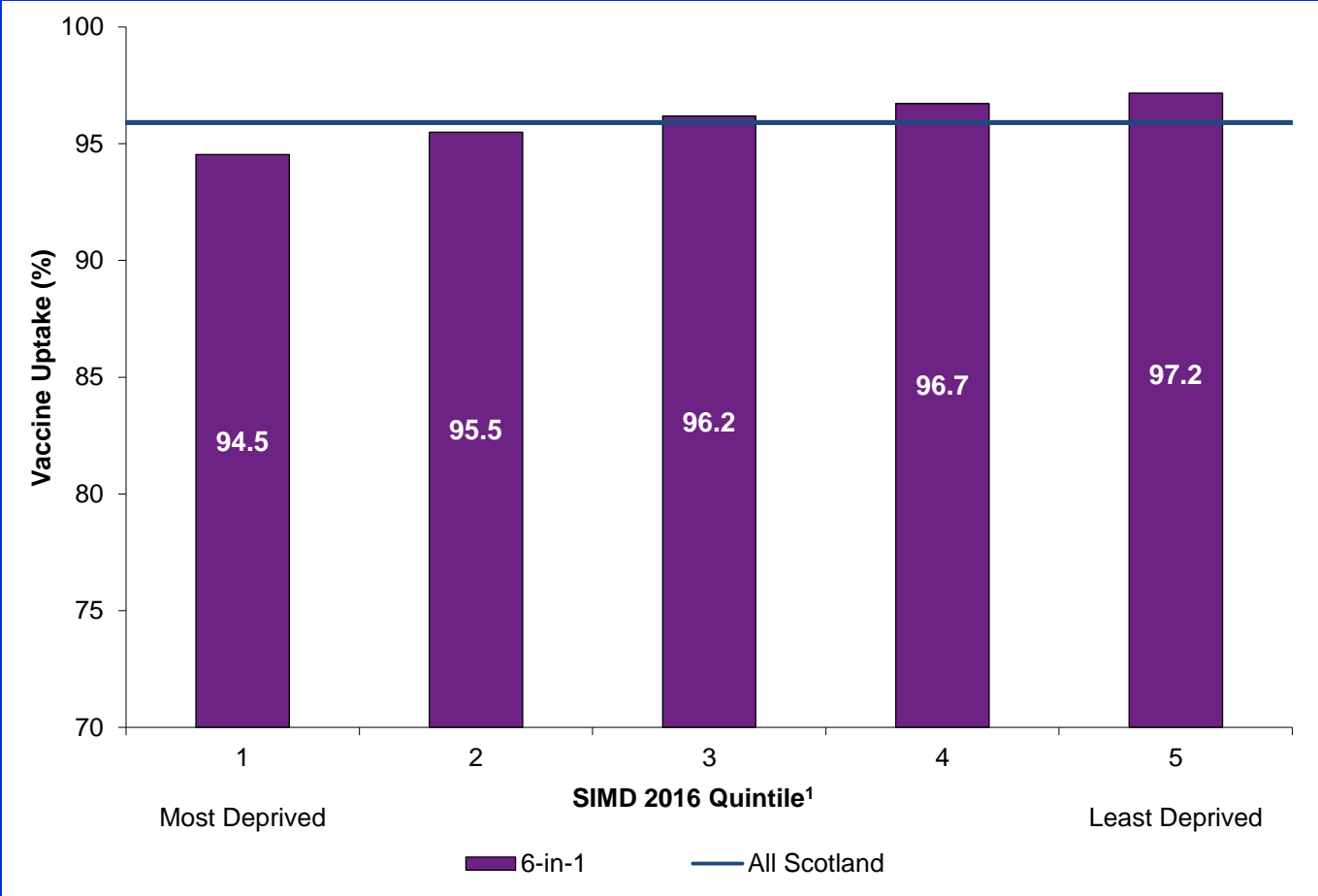


Figure 1. Reported cases of diphtheria in the WHO European Region, Russia and the Ukraine 1980-93



Take home messages

- Vaccination works, and works well, to prevent illness and death
- More illness will re-emerge if vaccination rates drop
- Let's work together to make sure the new arrangements are effective and don't increase inequality
- Flexibility is vital, especially for remote and rural areas