

The importance of vaccines for protecting human & animal health



WHAT ARE VACCINES?

Vaccines are an effective, convenient and easy to administer health intervention that protect animals and people against many infectious diseases



~~SMALL POX~~

~~RINDERPEST~~

Vaccination has led to the complete global eradication of two diseases:

- Smallpox in 1982
 - Rinderpest in 2011
- In human medicine, vaccines have also eradicated polio in Europe and helped reduce the number of new infections by diphtheria and measles by more than 95% compared to peak incidence rates¹



100+

MORE THAN 100 EXIST

Vaccines for more than 100 animal diseases exist to help protect many species of animals including cattle, swine, poultry, horses, sheep, goats, dogs, cats, exotic pets and fish¹



HOW DO VACCINES WORK?

Vaccines safely stimulate an animal's immune system against a specific disease, so if that animal is exposed to that disease later in life, it already has a defence against it

Why vaccinate animals?

ENSURE PROVISION OF SAFE FOOD

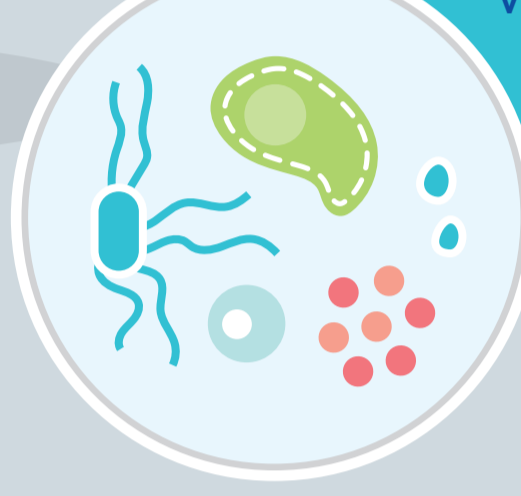
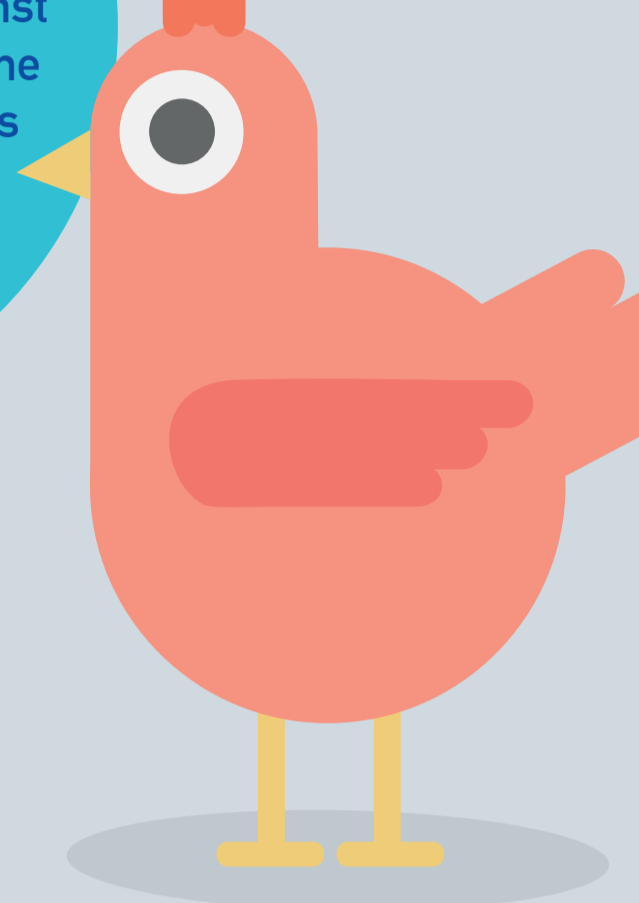
Vaccines protect livestock against infectious diseases, ensuring the provision of safe and nutritious food such as eggs, milk, fish and meat products

SAFEGUARD OUR PETS

Vaccines are routinely given to pets by a veterinarian, to protect them against diseases that allow them to safely remain part of our families for as long as possible

PROTECT HUMAN HEALTH

At least 61% of all human infectious diseases (and 75% of all infectious human diseases that have occurred during the past decade) come from animals², so vaccinating animals also protects human health



Vaccination in action



RABIES

Rabies kills up to 70,000 people each year throughout the world; Africa and Asia are the most affected regions.³ Effective vaccines for dogs and wildlife vectors are available. Dog vaccination is the preferred method of control, preventing more than 95% of human cases at only about 10% of the costs needed for post-bite treatment in people.³



EUROPE⁶

80% of rabies cases in Europe are seen in wildlife species (primarily red foxes).

An oral rabies vaccination for foxes introduced in 1990 saw the annual number of rabies cases in Europe decrease by nearly 75% and 9 countries were declared rabies-free



NORTH TANZANIA⁴

In North Tanzania a canine vaccination strategy implemented between 1996 and 2001 caused the incidence of dog rabies to decline by 97%

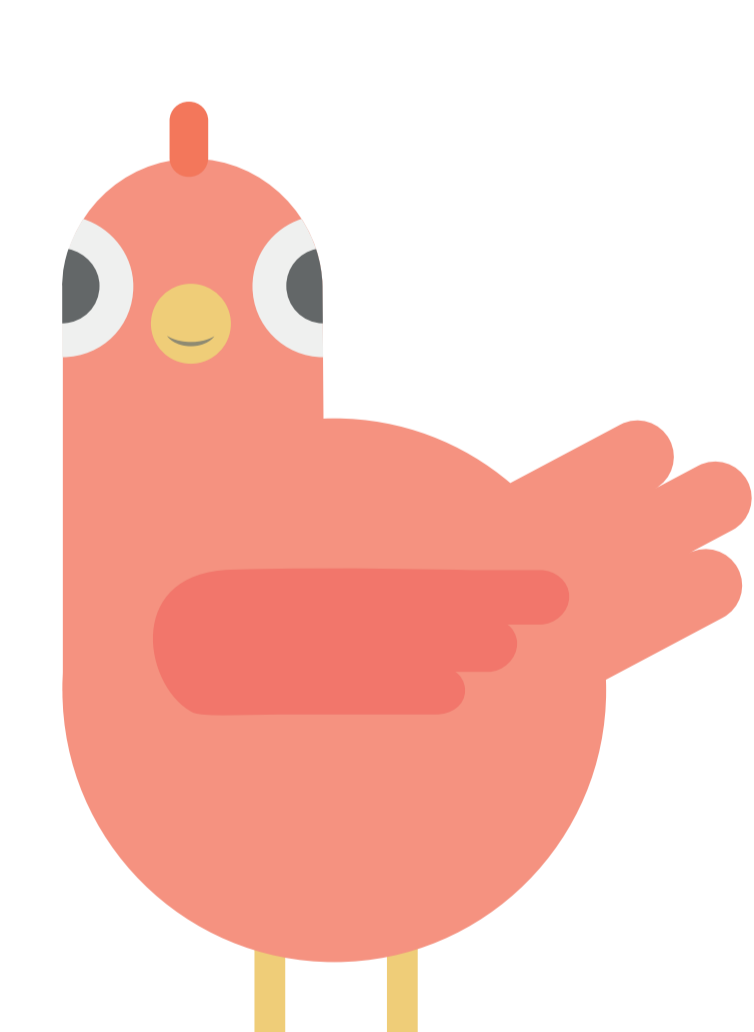


BANGLADESH⁵

In Bangladesh a national plan to reduce rabies through dog vaccination has reduced the number of human rabies-related deaths by approximately 50% between 2010 and 2013

NEWCASTLE DISEASE

Newcastle disease is one of the most infectious poultry diseases in the world causing extremely high illness (100%) and death (90%) rates, especially in chickens.⁷



Having previously devastated flocks in Malaysia, widespread adoption of vaccination programmes have led to no outbreaks of the disease in the region since the early 1990s⁸



EQUINE INFLUENZA (EI)

Equine influenza (EI) is a major respiratory disease of horses, controllable via vaccination and biosecurity measures.⁹



Previously free from EI, Australia in 2007 saw over 75,000 horses become infected due to a single imported infected horse,⁹ risking the loss of hundreds of millions of dollars-worth of racing industry revenue.¹⁰ Widespread vaccination of over 140,000 horses saw Australia declared EI-free again in 2008.¹¹

FELV

Feline leukaemia virus (FeLV) is the leading viral killer of cats, with 80-90% of infected cats dying within 3-4 years¹²



Less than 1-2% of healthy cats in the UK have FeLV thanks to widespread regular vaccination¹²

REFERENCES

- 1 IFAH (now HealthForAnimals) Whitepaper 'The benefits of vaccines and vaccination', 2012
- 2 http://www.who.int/zoonoses/control_neglected_zoonoses/en/ September 2015
- 3 September 28th 2012, <http://www.oie.int/en/for-the-media/press-releases/detail/article/oie-regional-vaccine-bank-for-asia-provides-50000-rabies-vaccines-to-lao-pdr/>
- 4 Cleaveland S, Kaare M, Tiringa P, Mlengweya T, Barrat J. A dog rabies vaccination campaign in rural Africa: impact on the incidence of dog rabies and human dog-bite injuries. Vaccine. 2003 May 16;21(17-18):1965-73.
- 5 <http://www.who.int/features/2014/bangladesh-tackles-rabies/en/> September 2015
- 6 http://www.who-rabies-bulletin.org/about_rabies/Control.aspx September 2015
- 7 Data from CIDRAP 2003
- 8 http://www.fao.org/docs/eims/upload/207692/7_1_1_cases.pdf September 2015
- 9 Romain Paillet. A Systematic Review of Recent Advances in Equine Influenza Vaccination. Vaccines (Basel). 2014 Dec; 2(4): 797-831. Published online 2014 Nov 14. doi: 10.3390/vaccines2040797
- 10 <http://www.abc.net.au/news/2007-08-24/horse-flu-action-set-to-cost-millions/649030> September 2015
- 11 Garner MG, Cowled B, East IJ, Moloney BJ, Kung NY. Evaluating the effectiveness of early vaccination in the control and eradication of equine influenza--a modelling approach. Prev Vet Med. 2011 Apr 1;99(1):15-27. doi: 10.1016/j.prevetmed.2010.02.007. Epub 2010 Mar 16.
- 12 <http://icatcare.org/advice/cat-health/feline-leukaemia-virus-felv> September 2015