



Vaccinating special risk groups/responding to outbreaks

2016



Protecting vulnerable persons

- Raise awareness of recommendations for certain patients
- Apply this to own workplace when developing immunisation practice
- Consider how the epidemiology of infectious diseases impacts immunisation programmes



All adults in the UK

- 5 doses of tetanus, diphtheria and polio vaccines
- 2 doses of MMR for those born after...
- Men ACWY vaccine up to 25 yrs of age and have never had Men C containing vaccine



Vaccine preventable diseases

- *Streptococcus pneumoniae*: pneumococcal vaccine(s)
- *Haemophilus influenzae (type B)*: Hib vaccine
- *Neisseria meningitidis*: Men ACWY and Men B vaccines

- Hepatitis A: hep A vaccine
- Hepatitis B: hep B vaccine

- Influenza: flu vaccine
- *Clostridium tetani*: tetanus vaccine
- Varicella (chickenpox): varicella vaccine
- Measles, mumps, rubella: MMR vaccine



On your tables

Consider the two subheadings below and list the conditions/lifestyles that might increase risk of vaccine preventable disease?

Medical conditions:

“Lifestyle” risk:



Medical Conditions

- Asplenia/splenic dysfunction
- Immunosuppressed patients & their household contacts
- Haemophillia
- Renal disease
- Liver disease
- This list is not exhaustive see Chp 7 Online Green Book



Lifestyle/occupational risk

- MSM (Men who have sex with men)
- PWID (People who inject drugs)
- Sex workers
- Gypsy Travellers
- International travellers
- Contacts of cases of some infectious disease
- Migrants not vaccinated to UK schedule



Health Care Workers

	Hep B	Influenza	MMR	Varicella (if non immune)
Occupation (example)				
Health Care Workers: patient contact	✓	✓	✓	✓



Health care workers

HCW with direct patient contact:

- Up to date with routine schedule
- 2 doses of MMR unless evidence of immunity to measles and rubella vaccines
- Hepatitis B
- Influenza
- BCG (<35 yrs of age)
- Varicella if non-immune

(Chp 12 Online Green Book)



Lifestyles

	Hep A	Hep B	Tetanus
Lifestyle indications (examples)			
Men who have sex with men (MSM)	✓	✓	
People who inject drugs (PWID)	✓	✓	✓



Resources

Online Green Book:

- In specific disease chapters
- In chapter 7 on underlying medical conditions

Examples of specialist guidance

- British HIV association
- European Bone and Marrow transplant guidance

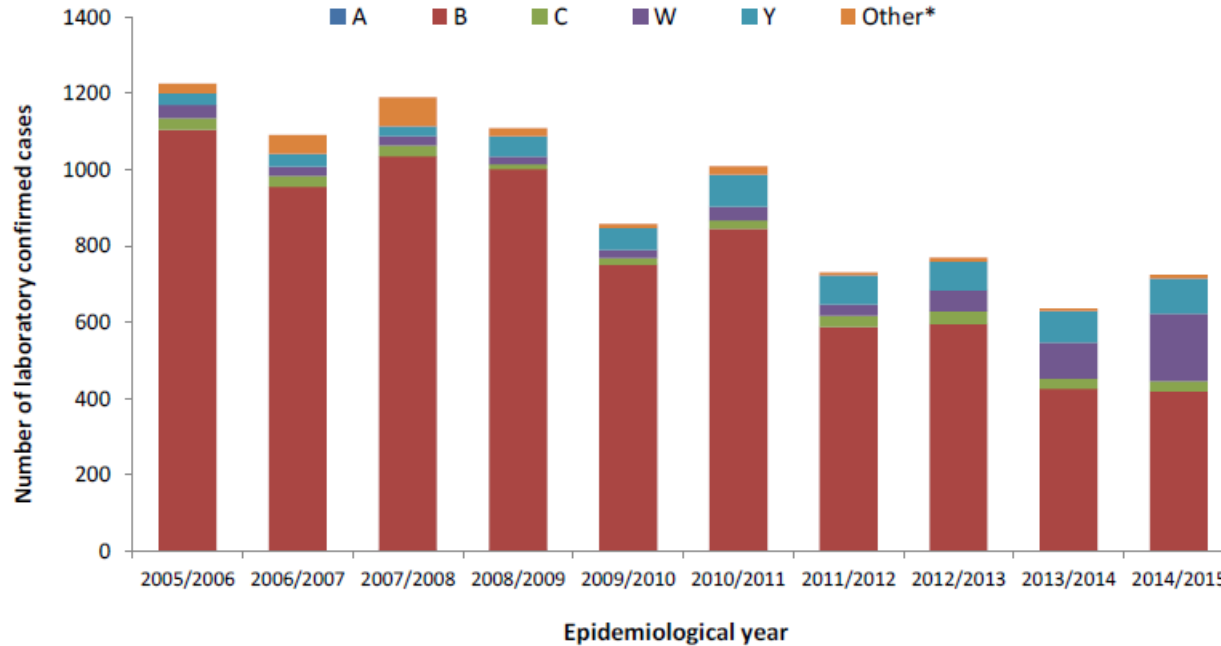


Responding to outbreaks

- Meningococcal group W
- Changing epidemiology
- Higher case fatality rate than other strains
- Expansion of hyper-virulent strain
- Public health emergency

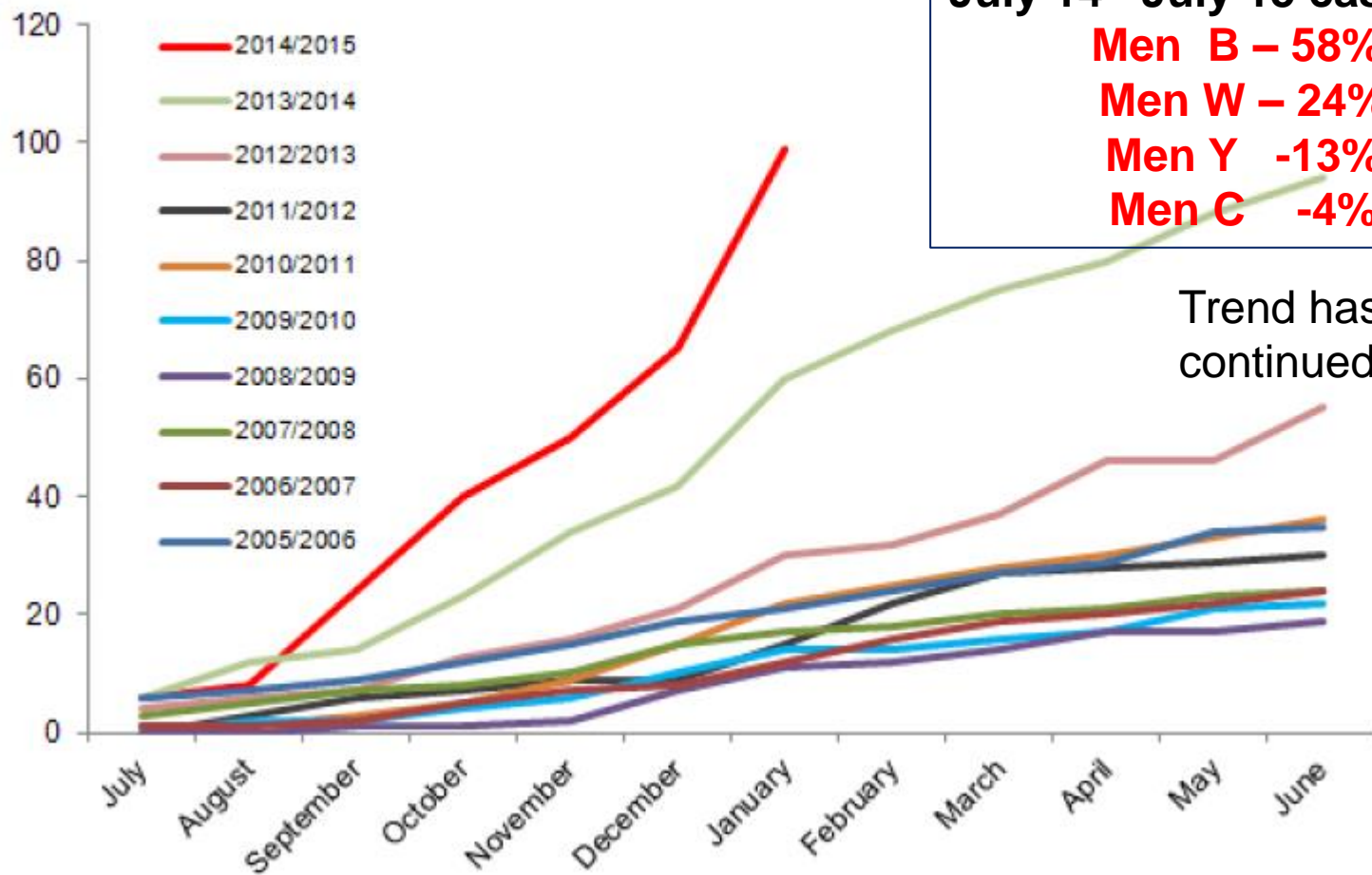


Figure 1. Invasive meningococcal disease in England by capsular group: 2005/2006 to 2014/2015



https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/470602/hpr3815_imd.pdf

Cumulative cases of laboratory-confirmed invasive meningococcal group W disease by epidemiological year in England, to end-January 2015



July 14 – July 15 cases IMD

Men B – 58%

Men W – 24%

Men Y – 13%

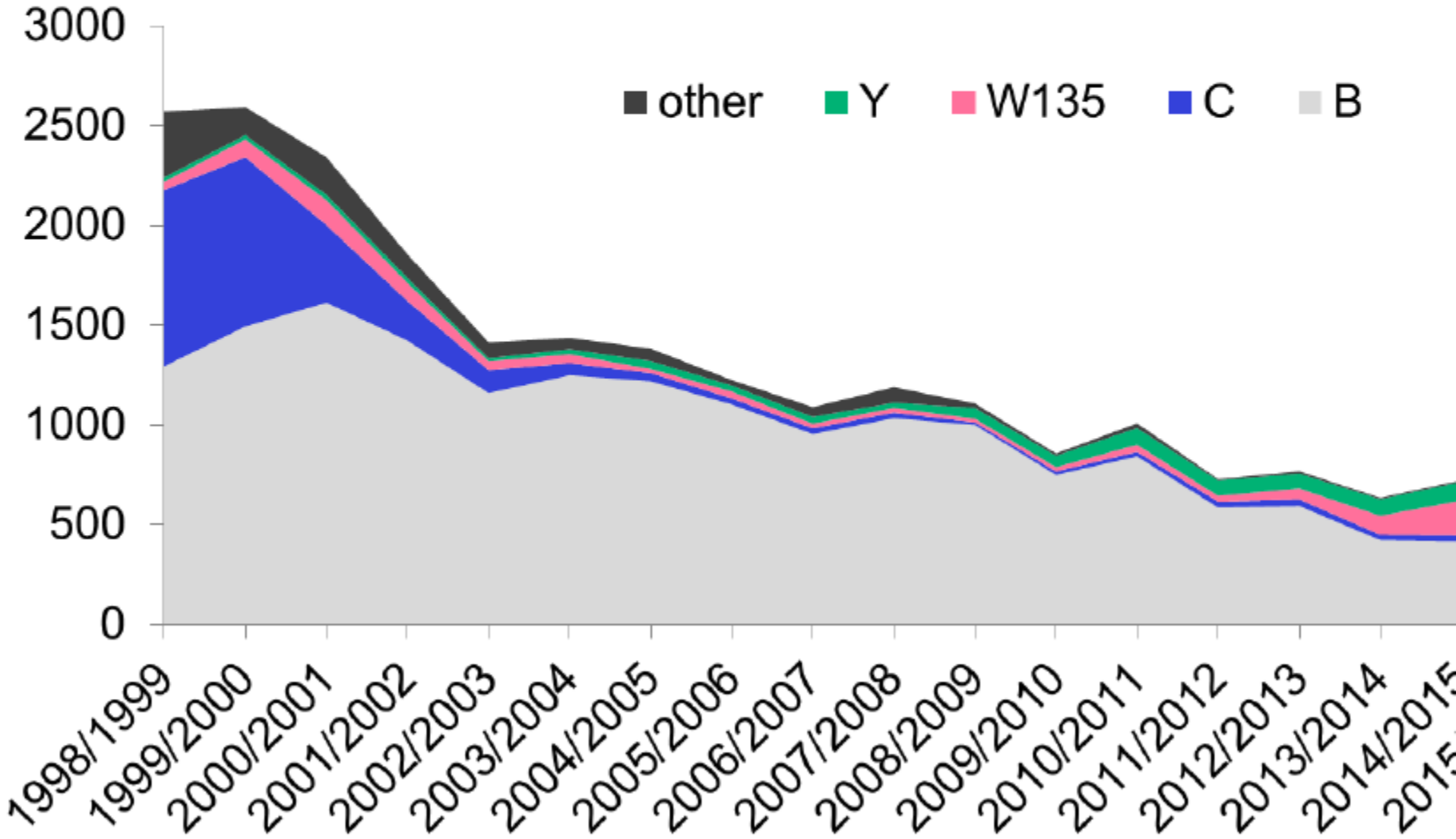
Men C – 4%

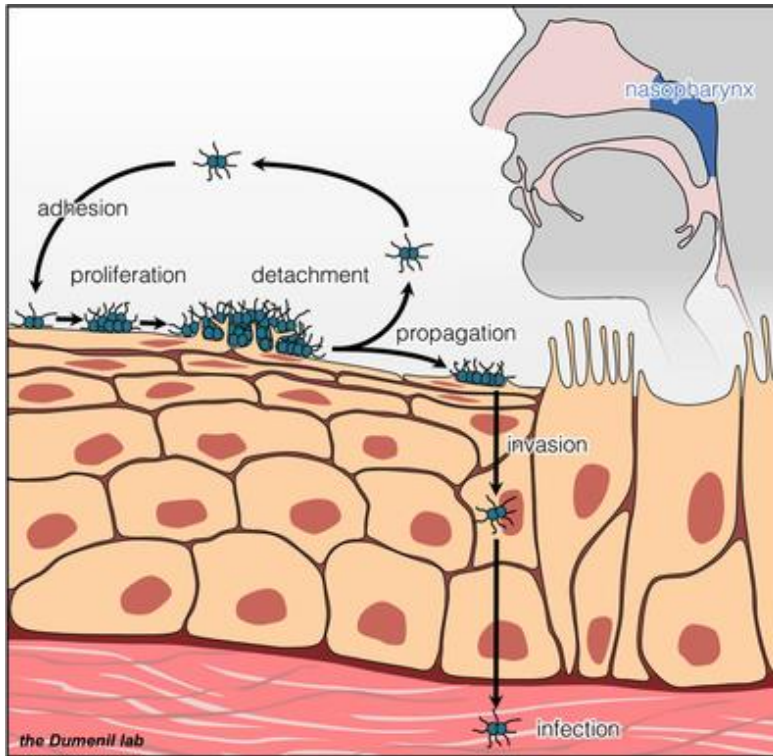
Trend has continued

Health Protection Report 9(7) 27/02/2015:

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/407865/hpr0715_men-w.pdf

Total laboratory confirmed invasive meningococcal disease, England





- **10-30% of population have n.meningitidis present in nasopharynx without disease (asymptomatic carriage)**
- **Highest rate of carriage known to be in late adolescence**

Vaccinating yrs 10 -13 aims to:

- **Direct protection from disease**
- **Reduce carriage of bug thereby indirectly protecting wider population**

Picture source:

<http://guillaumedumenilab.weebly.com/neisseria-meningitidis.html>



Men ACWY vaccine programme began in August 2015 with

- Academic year 2014/15 urgent catch-up* campaign for those in school year 13 age adolescents through general practice using a call and recall system
- a catch-up* campaign for current school year 10 students through schools from January 2016
- adding MenACWY vaccine to the routine adolescent schools programme (school year 9 or 10) from Autumn 2015, as a direct replacement for the MenC vaccination
- adding MenACWY vaccine to the existing time-limited 'freshers' programme (ie for older first time university entrants who have not already received).

*N.B. a further element of the catch-up campaign to cover those who were in school years 11 and 12 (2014/15 academic year) required when these students reach year 13.



MenACWY



DoB (current school yr 16/17)	Place and time of vaccination		School year at time of vax
	GP	School	
01/09/96 -31/08/97 (finished)	Aug 15 – Mar 16		
01/09/97 – 31/08/98	From April 16 GP		Were Yr 13
01/09/98 – 31/08/99 (Yr 13)	? April 17 TBC		Yr 13
01/09/1999 -31/08/2000 (finished)		Jan 2016 catch up	Were Yr 11
01/09/2000 – 31/08/2001 (Yr 11)		2016/17 catch up	Yr 11
01/09/2001-31/08/2002 (finished)		2015-16 routine	Were Yr 9
01/09/2002-31/08/2003 (Yr 9)		2016-17 routine	Yr 9

Cohorts remain eligible up until the age of 25 years



Summary

Vaccination programmes are:

- Aimed at protecting individuals at highest risk of disease
- Dynamic, responding to public health emergencies or changing epidemiology of disease