

Module 3: Understanding who and when

This eModule is designed to give you an understanding of the rationale behind the meningococcal ACWY vaccines, who they can help to protect and when they are needed.

This eModule is provided to you by Pfizer Ltd. It is not intended to replace your guidelines, protocols and SOPs.

For UK registered healthcare professionals and other relevant decision makers*

References can be found via the buttons on every screen throughout the course, prescribing information and adverse event reporting can be found via buttons on the summary screen.

For full information on Nimenrix, please refer to the Summary of Product Characteristics.

*The ABPI Code of Practice definition of “other relevant decision makers” particularly includes those with an NHS role who could influence in any way the administration, consumption, prescription, purchase, recommendation, sale, supply or use of any medicine but who are not healthcare professionals

Module introduction and learning objectives

Introduction:

Meningococcal ACWY vaccination is recommended for a number of individuals at increased risk for invasive meningococcal disease (IMD).^{1,2}

Learning objectives:

By the end of this Module, you should be able to:



Explain what makes someone a potential candidate for meningococcal ACWY vaccination.



Identify potential candidates and discuss meningococcal ACWY vaccination.



Who should be vaccinated against meningococcal disease?

Age

Do you recall the Young family from Module 1?
The teenage daughter Ellie has just turned 14 years old.

As part of the Routine Immunisation Schedule, Ellie will be due a meningococcal vaccine targeted against *Neisseria meningitidis* (*N. meningitidis*) serogroups A, C, W-135 and Y. This is because Public Health England (PHE) recommend that adolescents aged 14 years old (school year 9) should be given a MenACWY vaccine, such as Nimenrix® or Menveo.¹



Who should be vaccinated against meningococcal disease?

Travel

If you remember from Module 1, we met Tom who often travels, on business, to different parts of the world.

As you know, vaccinations are required when travelling to particular regions of the world. There are certain parts of the world where the meningococcal ACWY vaccine is required or recommended.¹

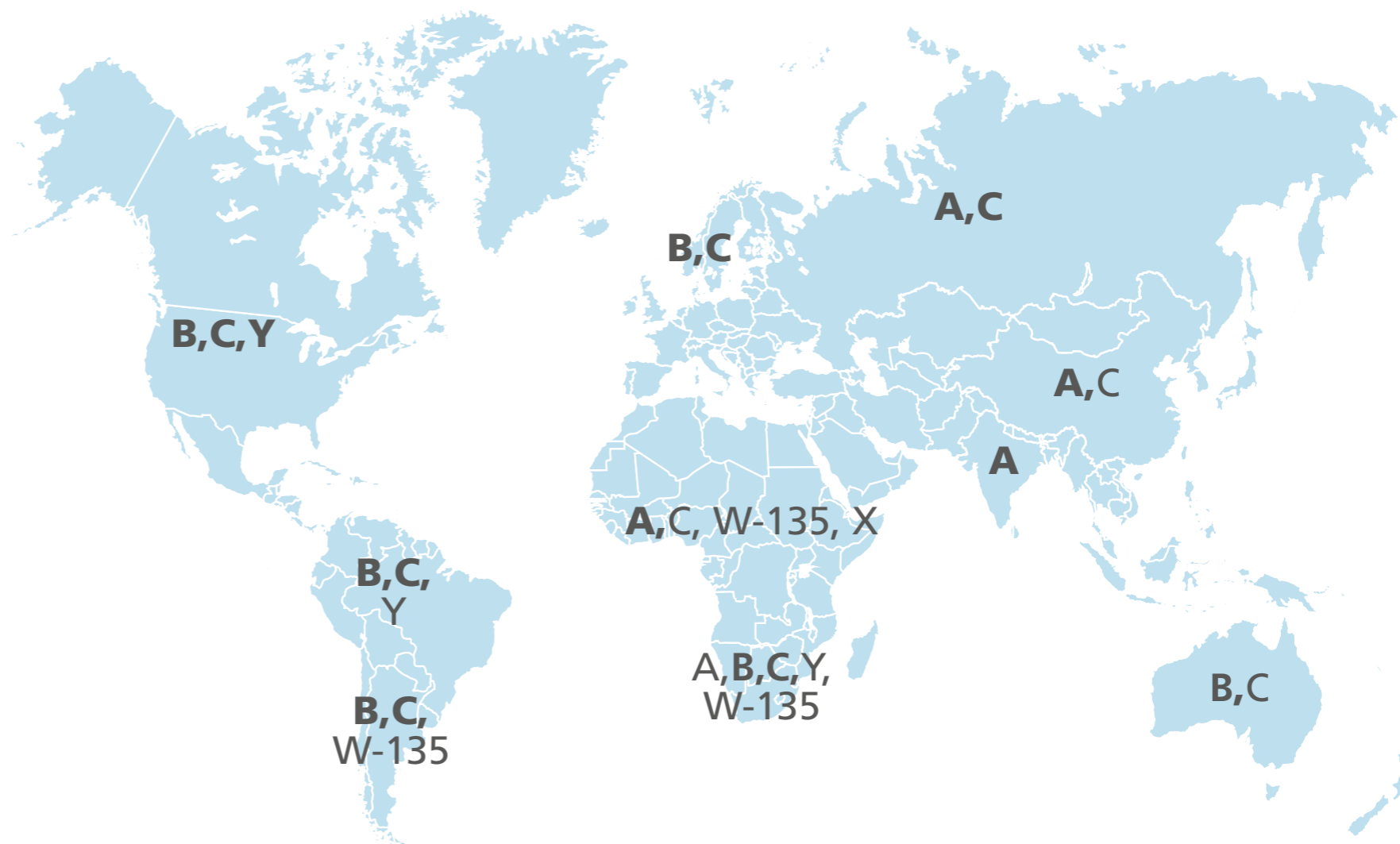


Who should be vaccinated against meningococcal disease?

Meningococcal disease occurs worldwide with different *N. meningitidis* serogroups occurring in different regions, as shown in the image.^{1,2} The number of invasive meningococcal disease (IMD) cases is estimated to be at least 1.2 million per year, and case fatality rates have been documented to range from 4.1% to 20.0%.³

The global distribution of *N. meningitidis* serogroups is constantly changing, so the evolution of IMD requires ongoing surveillance to track serogroups responsible for infection.^{4,5}

Worldwide distribution of common and predominant meningococcal serogroups¹



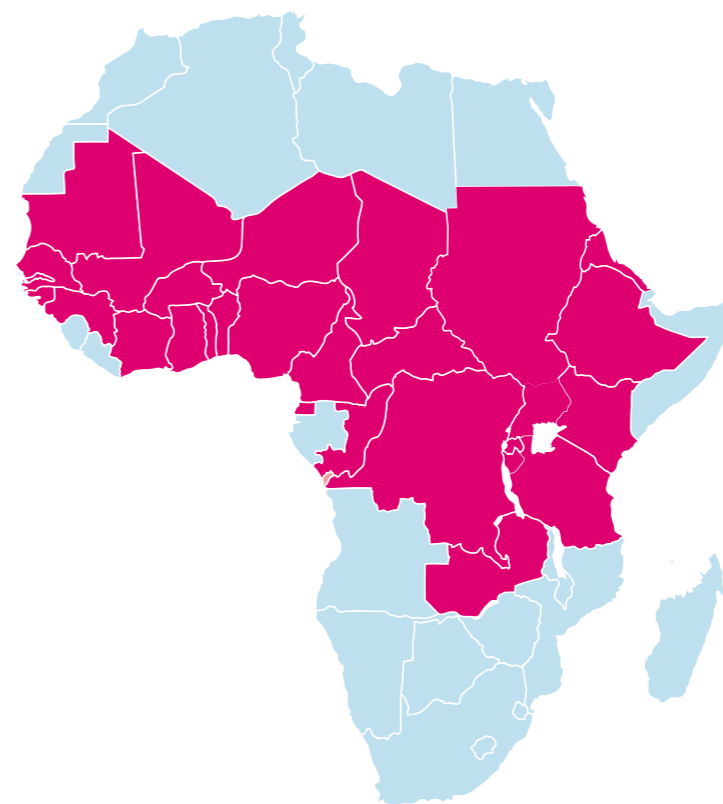
Who should be vaccinated against meningococcal disease?

Across the middle of Africa, there is a belt of countries where rates of IMD can be high, especially during the dry season (December to June).¹

Travellers to sub-Saharan Africa who may be at an increased risk of IMD are recommended to receive a vaccine against meningococcal serogroups A, C, W-135 and Y, such as Nimenrix®. This includes those who are:²

- Long-stay travellers who have close contact with the local population
- Healthcare workers
- Those visiting friends and relatives
- Those who live or travel 'rough' such as backpackers
- Individuals with no spleen or poorly functioning spleen
- Individuals with certain immune deficiencies (e.g., certain complement deficiencies or individuals who are receiving complement inhibitor therapies, such as eculizumab).

The sub-Saharan meningitis belt²



Benin	Democratic Republic of The Congo	Kenya	Sudan
Burkina Faso	Eritrea	Mali	Tanzania
Burundi	Ethiopia	Mauritania	Togo
Cameroon	The Gambia	Niger	Uganda
Central African Republic	Ghana	Nigeria	Zambia
Chad	Guinea	Rwanda	
Côte d'Ivoire	Guinea Bissau	Senegal	
		South Sudan	

Hajj and Umrah pilgrimages

There is an increased risk of IMD during Hajj and Umrah pilgrimages due to intensely crowded conditions.^{1,2}

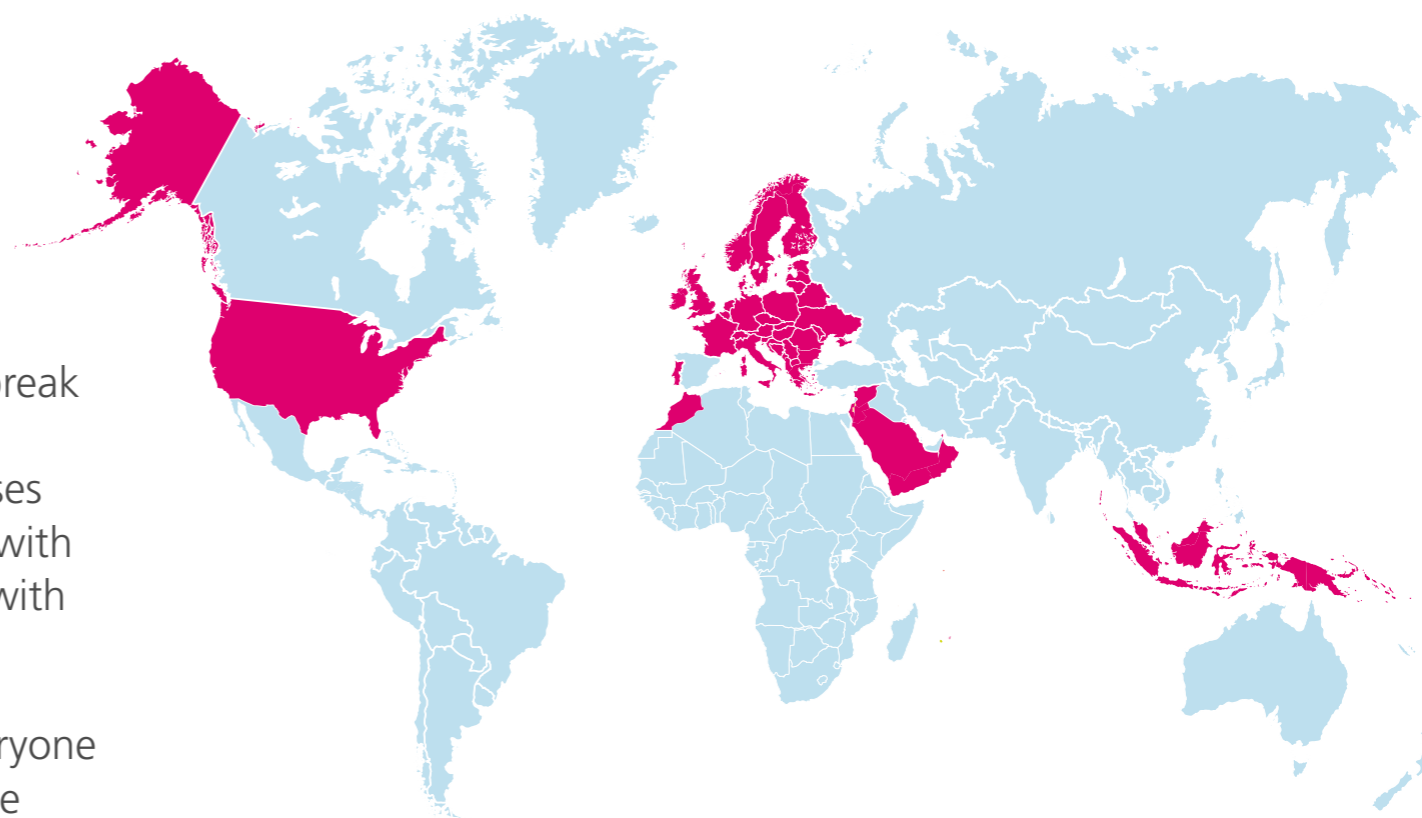
International outbreak

An outbreak of *N. meningitidis* serogroup W-135 was seen in Saudi Arabia during 2000/2001 that coincided with the Hajj and Umrah pilgrimages. Following the outbreak in Saudi Arabia, cases were reported in several countries around the world (as shown in the image), with most cases being directly associated with Hajj and Umrah, i.e., links with international travel to Saudi Arabia where close contact with returning pilgrims could be established.³

The Kingdom of Saudi Arabia therefore requires that everyone visiting for Hajj or Umrah receive a meningococcal vaccine against *N. meningitidis* serogroups A, C, W-135 and Y, such as Nimenrix®. The vaccine must:⁴

- Be a conjugate vaccine or polysaccharide vaccine (the latter is not available in the UK)
- Have been given no more than 5 years and no less than 10 days before arrival.

International *N. meningitidis* cases from April 2000 to December 2000³



Number of *N. meningitidis* W-135 cases per country from April to December 2000

Americas USA (4)	Germany (10) Netherlands (9) Norway (1) Sweden (2) UK (51)	Middle East Kuwait (3) Oman (18) Saudi Arabia (241)	Asia and West Pacific Indonesia (14) Singapore (4)
Europe Belgium (1) Denmark (1) Finland (2) France (21)	North Africa Morocco (3)	*Numbers in brackets are cases reported from April to December 2000	

IMD transmission and infection show seasonal variation:^{1,2}



In the UK when can or should people be vaccinated?

Meningococcal vaccination is recommended for:

Age	<ul style="list-style-type: none"> • Adolescents aged 14 years old should be given a meningococcal vaccine against <i>N. meningitidis</i> serogroups A, C, W-135 and Y, such as Nimenrix®, as part of the Routine Immunisation Schedule.¹ • If patients were born on or after 1 September 1996 and eligible but missed their teenage MenACWY vaccine, they can still have the vaccine up to their 25th birthday. If they are older and starting university for the first time, they can still have the vaccine up to their 25th birthday.²
Travel	<ul style="list-style-type: none"> • Travellers to sub-Saharan Africa who are at increased risk of meningococcal infections are recommended to receive a meningococcal vaccine against serogroups A, C, W-135 and Y, such as Nimenrix®.³ • In order to issue Hajj and Umrah visas, the Kingdom of Saudi Arabia requires proof of receipt of a meningococcal vaccine against <i>N. meningitidis</i> serogroups A, C, W-135 and Y, such as Nimenrix®.⁴

Check your understanding



True or false:

Travellers to sub-Saharan Africa who are at increased risk of IMD are recommended to receive a vaccine against meningococcal serogroups A, C, W-135. and Y.¹



Select the correct answer:

At what age should adolescents receive a meningococcal vaccine targeted against *N. meningitidis* serogroups A, C, W-135 and Y?²

Module summary

- ✓ Public Health England recommend that adolescents aged 14 years old (school year 9) should be given a MenACWY vaccine, such as Nimenrix® or Menveo.¹
- ✓ Meningococcal disease occurs worldwide with different *N. meningitidis* serogroups occurring in different regions.^{2,3} The number of IMD cases is estimated to be at least 1.2 million per year, and case fatality rates have been documented to range from 4.1% to 20.0%.⁴
- ✓ Rates of IMD in the sub-Saharan meningitis belt can be high, especially during the dry season (December to June).^{2,4}
- ✓ Travellers to sub-Saharan Africa who are at increased risk of IMD are recommended to receive a vaccine against meningococcal serogroups A, C, W-135 and Y, such as Nimenrix®.⁵
- ✓ The Kingdom of Saudi Arabia requires that everyone visiting for Hajj or Umrah receive a meningococcal vaccine against *N. meningitidis* serogroups A, C, W-135 and Y, such as Nimenrix®.^{5,6}

