

NORWAY

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General information

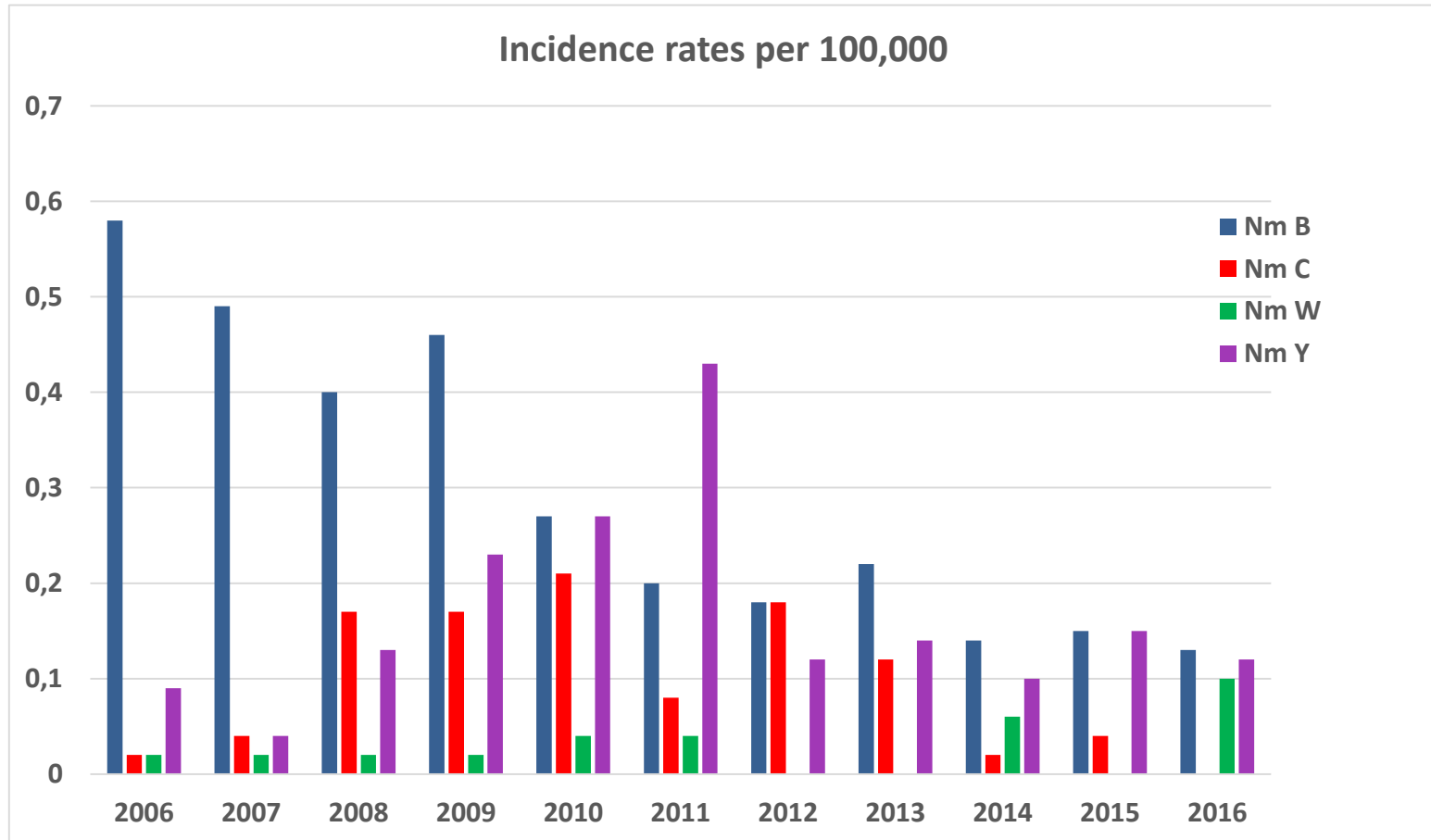
Population size	2nd quarter 2016	5,223,256
Structure of surveillance of meningococcal disease	Statutory notification of disease Enhanced surveillance Centralized Laboratory Surveillance	Yes No Yes
NRL: repertoire of typing targets	Serogroup PorA antigen sequence typing FetA antigen sequence typing Vaccine Antigen sequence typing (e.g. fhbp) Antibiotic resistance gene typing MLST (7 loci) Genome sequencing	Yes Yes Yes Yes Yes Yes Yes
Meningococcal vaccine recommendation	Polysaccharide vaccines (not conjugated) MenC conjugate MenACWY conjugate Protein vaccines targeting MenB	No Risk group Risk group Risk group
Uptake of Men WY vaccines	Estimated % per target group size	36,611 doses distributed; 31,806 vaccinations registered. 59 for close-contacts of cases; 12 for splenectomy patients.

Basic numbers for 2015

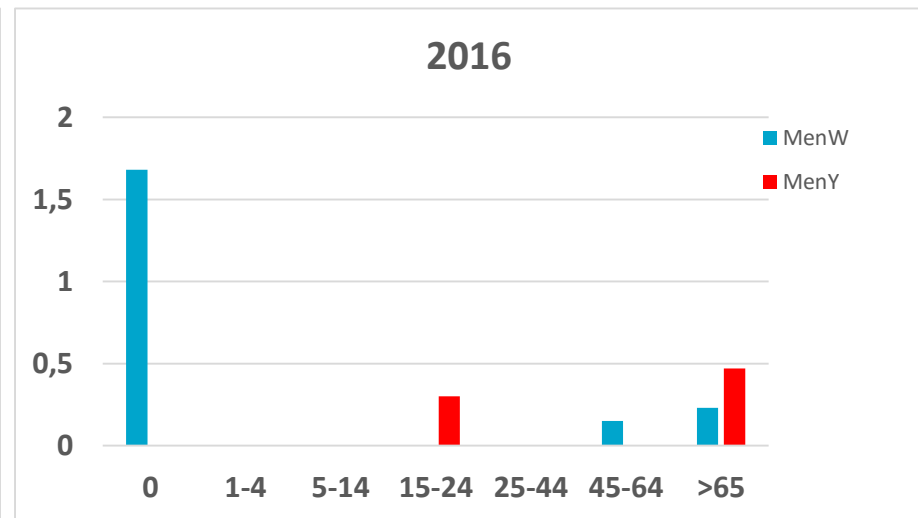
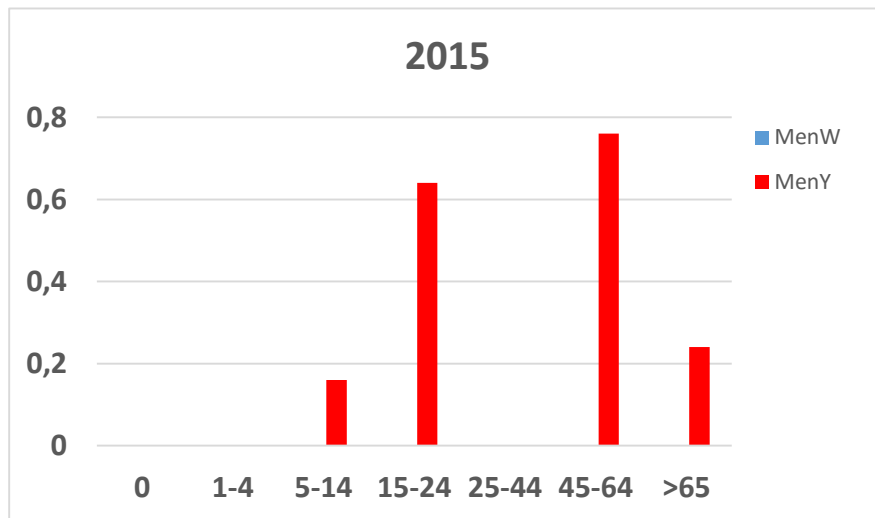
No of reported cases of invasive meningococcal disease * (incidence rate)	N=19 (0.37/100,000)
Proportion of reported cases of invasive meningococcal disease, whose strains or samples were processed at NRL (<i>=laboratory surveillance coverage of reported cases</i>)	14/19 = 74%
MenW <ul style="list-style-type: none">• no of cases,• incidence rate,• % of all cases	N=0 0/100,000 0%
MenY <ul style="list-style-type: none">• no of cases,• incidence rate,• % of all cases	N=8 0.16/100,000 42%

* [ECDC case definition](#)

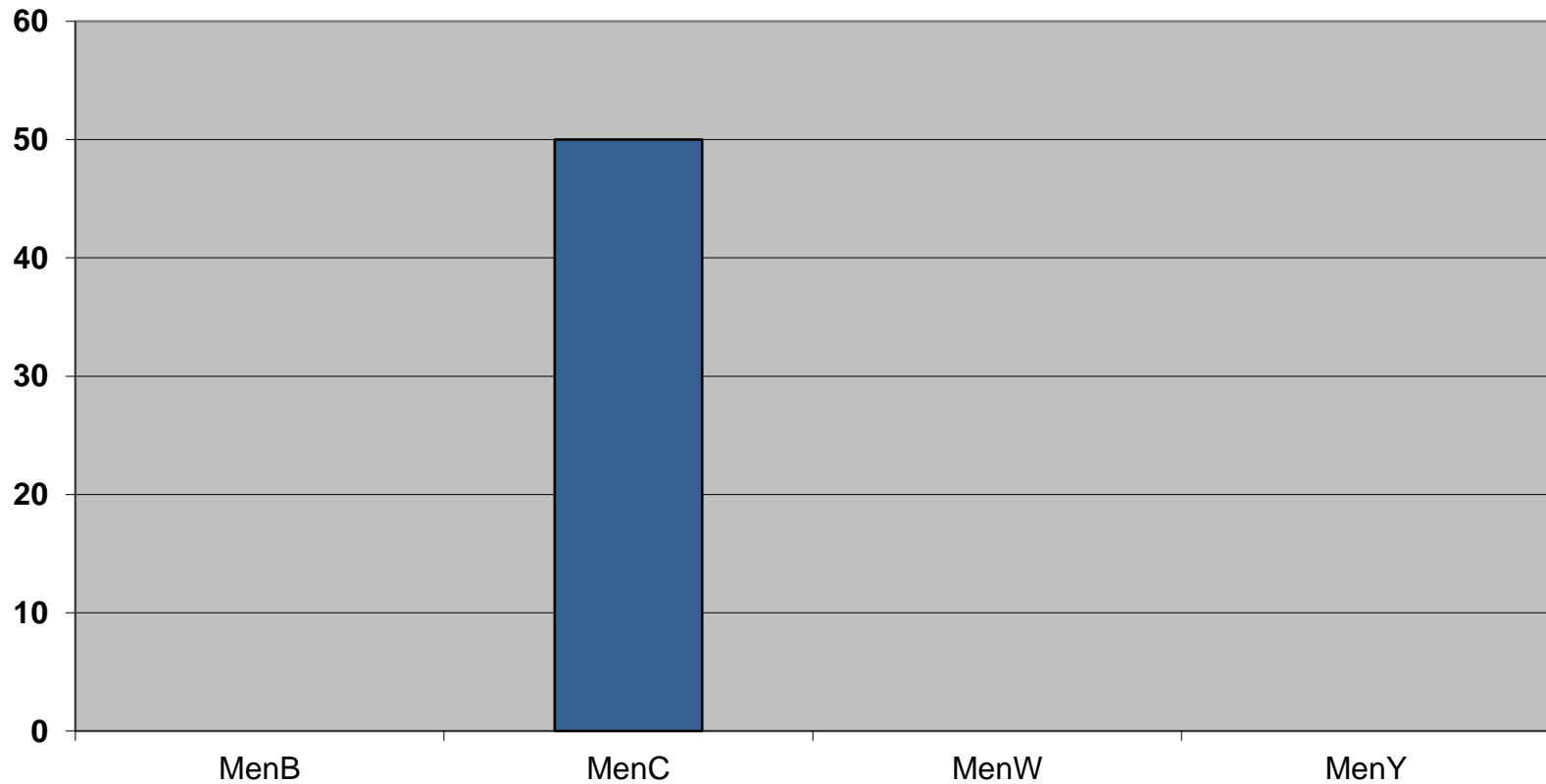
Incidence rates for serogroups B, C, W and Y, Norway, 2006-2016



Age-specific incidence rates for W and Y cases, Norway 2015 and 2016



Case fatality rates (in %) for serogroups B, C, W and Y, Norway 2015

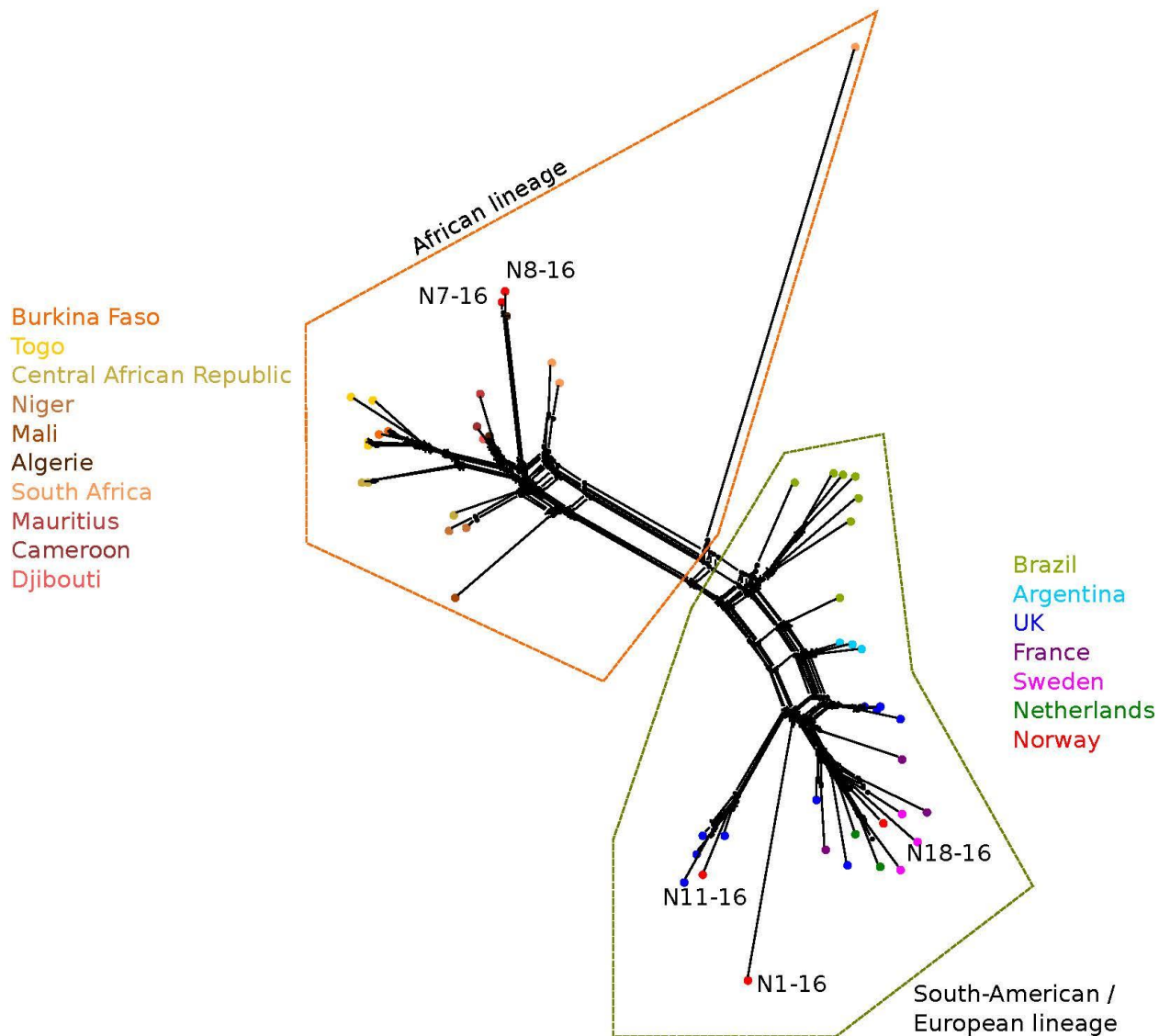


Sequence typing of **MenW** in 2016

Year	2016
Dominant variant according to the typing method used	ST-11; P1.5,2; F1-1 (4)/F1-146 (1)
Dominant variant according to the typing method used, in % of all MenW cases	80%
cc11 in % of all serogroup W cases	100%

Outbreaks caused by serogroups W and Y, Norway 2012 - 2016

	MenW	MenY
Number of outbreaks or clusters	0	0
Total number of patients involved		
Settings		



cgMLST of Norwegian W isolates, 2016