FINLAND

Maija Toropainen

National Institute for Health and Welfare (THL)

General information

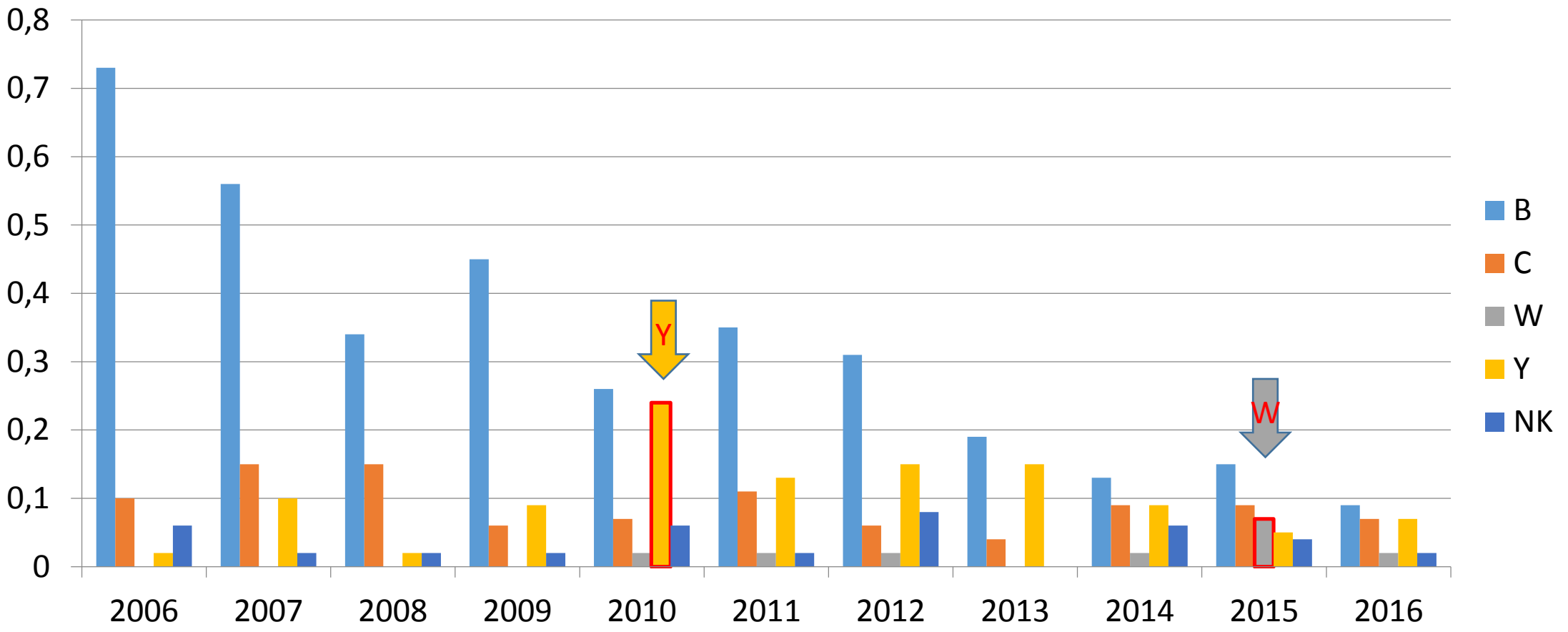
Population size	Category	5.5 million
Structure of surveillance of meningococcal disease	Statutory notification of disease Enhanced surveillance Centralized Laboratory Surveillance	Yes Yes Yes
NRL: repertoire of typing targets	Serogroup PorA antigen sequence typing FetA antigen sequence typing Vaccine 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	Yes: military conscripts ad 2016 Yes (rarely) Yes (risk groups, conscripts 2017?-) No recommendation yet
Uptake of Men**WY** vaccines	estimated % per target group size	< 1% nationally (conjugates)

Basic numbers for 2015

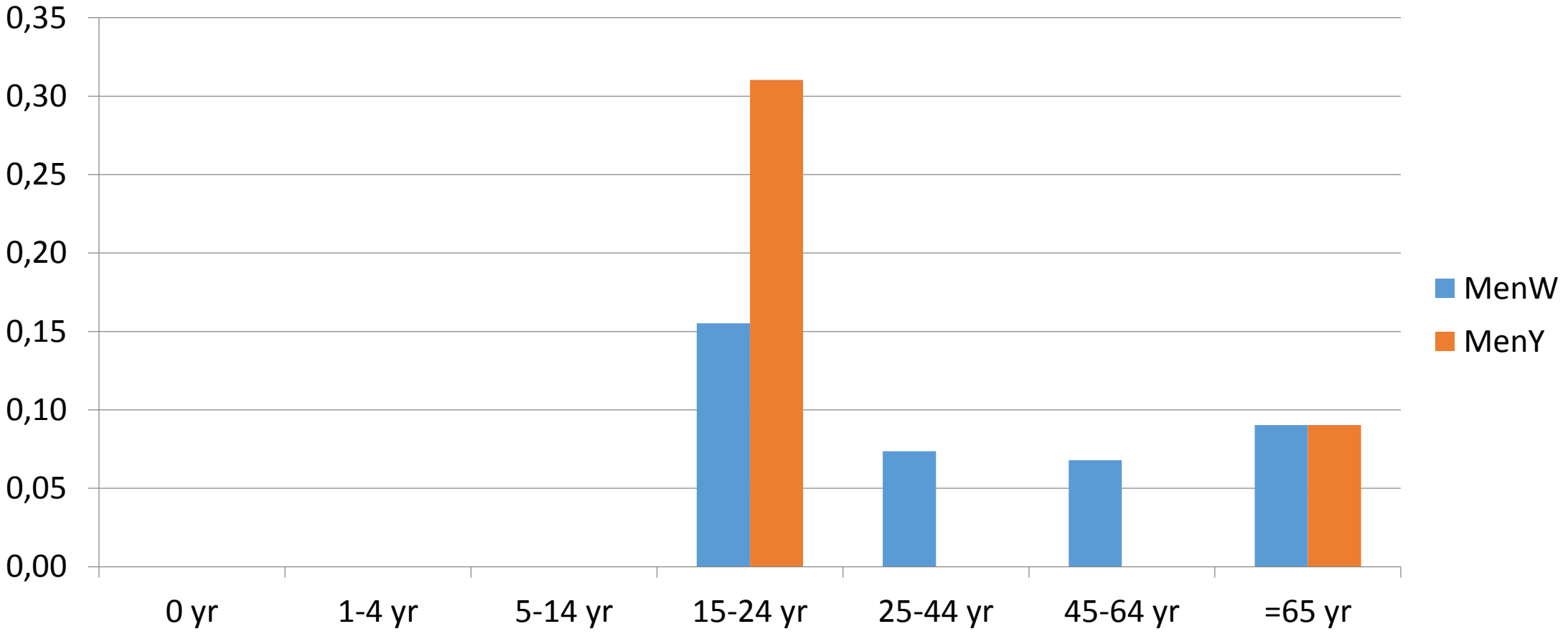
No of reported cases of **invasive meningococcal disease** * (incidence rate)	N=22 (0.40 /100,000)
Proportion of reported cases of invasive meningococcal disease, whose strains or samples were processed at NRL *(=laboratory surveillance coverage of reported cases)*	91% (20/22)
MenW • no of cases, • incidence rate, • % of all cases	 N=4 0.07/100,000 18%
MenY • no of cases, • incidence rate, • % of all cases	 N=3 0.05/100,000 14 %

* please use ECDC case definition

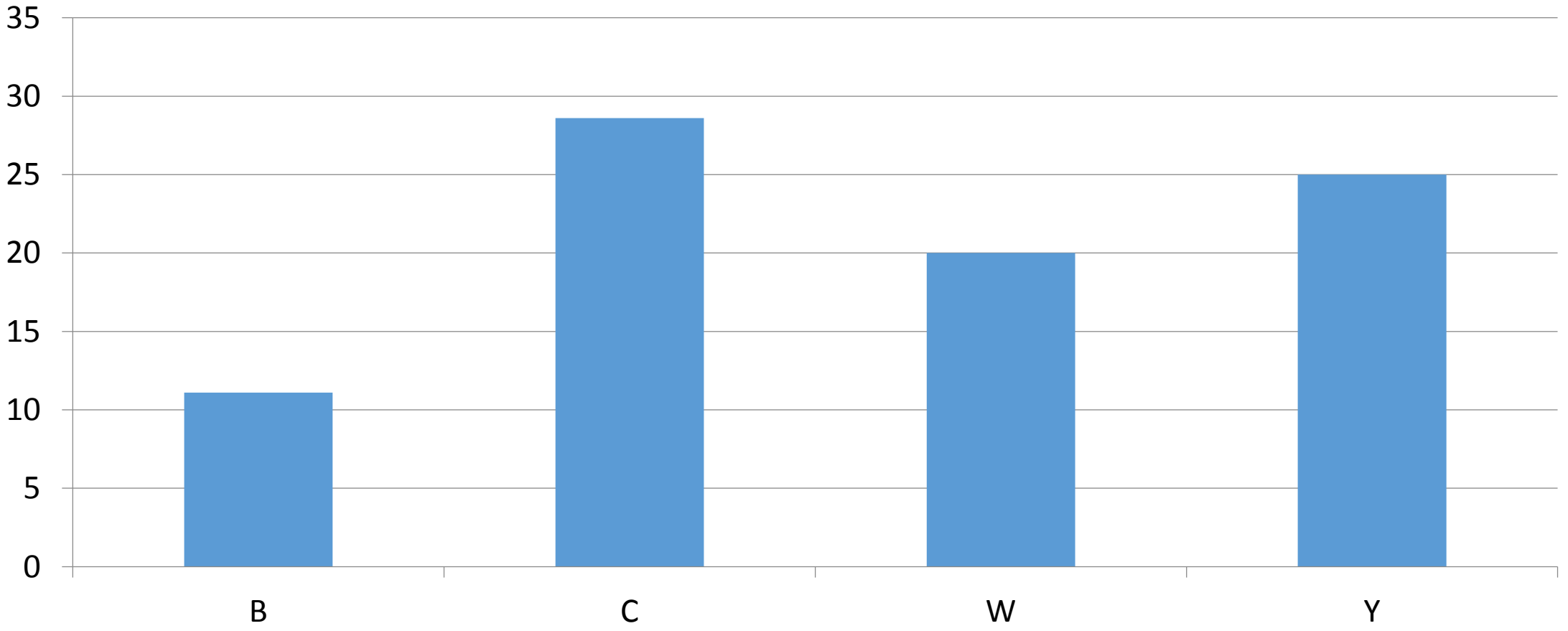
Incidence rates for serogroups B, C, W, and Y from 2006-2016



Age specific incidence rates in 2015 for serogroups W and Y



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



Sequence typing of MenW in 2015

Year	2015
Dominant variant according to the typing method used	W:P1.5,2: F1-1: ST-11 (cc11)
Dominant variant according to the typing method used, in % of all MenW cases	75 % (3/4)
cc11 in % of all serogroup W cases	75% (3/4)

Outbreaks caused by serogroups W and Y 2012 - 2016

	MenW	MenY
Number of outbreaks or clusters	1 (2015)	1 (2013)
Total number of patients involved	3	2
Settings	spatio-temporal cluster	spatio-temporal cluster