

Supplementary Table 1. Influenza B positivity and median age distribution by influenza B lineage and season, Canadian SPSN, 2010-11 to 2015-16

Season	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	Overall
Influenza positivity by season, n (column %)							
N total¹	1878	1663	1604	1801	2197	2646	11789
Negative control	1099 (59)	1174 (71)	922 (57)	1106 (61)	1270 (58)	1429 (54)	7000 (59)
Influenza A	564 (30)	240 (14)	512 (32)	461 (26)	672 (31)	754 (28)	3203 (27)
Influenza B	215 (11)	249 (15)	170 (11)	234 (13)	257 (12)	468 (18)	1593 (14)
% influenza B among all influenza detections							
Influenza B	28	51	25	34	28	38	33
Influenza B lineage by season, n (column %)							
B(Victoria) ²	126 (59)	117 (47)	50 (29)	5 (2)	7 (3)	334 (71)	639 (40)
B(Yamagata) ³	3 (1)	112 (45)	104 (61)	208 (89)	212 (82)	94 (20)	733 (46)
Unknown lineage	86 (40) ⁴	20 (8)	16 (9)	21 (9)	38 (15)	40 (9)	221 (14)
Median age (years) by season							
Negative control	32	35	37	36	36	35	35
Influenza B overall	17	31	29	43.5	43	23	30 ⁵
By lineage							
B(Victoria)	14.5 ⁶	23	25.5	29	22	19	20 ^{5,6}
B(Yamagata)	40	39.5	32.5	42.5	42	39	40
Unknown lineage	20.5 ⁶	33.5	43.5	48	46.5	29	32

¹ Includes 7 influenza A and B co-infections (2 in 2014-15 and 5 in 2015-16); values will sum to more than the total number of influenza cases in those seasons.

² B(Victoria) viruses belonging to phylogenetic clade 1A were the dominant circulating strain during this period.

³ B(Yamagata) viruses belonging to two separate phylogenetic clades circulated during this period. Clade 3 viruses were the dominant circulating B(Yamagata) strain, with the exception of the 2012-13 season when clade 2 viruses were dominant; mixed circulation of both clades (but clade 3 dominant) occurred in 2011-12 and 2013-14.

⁴ Sequencing and lineage-specific RT-PCR assay were not conducted on influenza B viruses during the 2010-11 season; lineage-level characterization was based only upon hemagglutination inhibition (HI) assay among isolates submitted to Canada's National Microbiology Laboratory (NML), accounting for a greater proportion of viruses with unknown lineage that season. Separate national surveillance data reported for the period September 2010 to May 2011 by Canada's NML showed that the vast majority of influenza B detections in Canada during the 2010-11 season belonged to the B(Victoria) lineage (475/497; 96%) (see: http://publications.gc.ca/collections/collection_2013/aspc-phac/HP58-1-2011-18-eng.pdf) similar to observations here among SPSN viruses of known lineage for 2010-11 (126/129; 98%).

⁵ In sensitivity analysis excluding the 2010-11 season, the overall median age across combined seasons did not substantially differ compared to the original analysis that included the 2010-11 season for influenza B overall (33.5 years vs. 30 years) or for B(Victoria) cases (22 years vs. 20 years).

⁶ In 2010-11, differences in the median age of B(Victoria) vs. cases of unknown lineage were driven by a greater proportion of the latter within the 20-64 year age group (19% among lineage unknown vs. 6% among Victoria cases)(see **Supplementary Table 2**). In sensitivity analysis, assuming that all influenza B cases with missing lineage data for 2010-11 were B(Victoria) (consistent with the near absence of B(Yamagata) that season), the median age increased slightly compared to the original analysis for B(Victoria) cases in 2010-11 (17 years vs. 14.5 years) but the median age of B(Victoria) cases for all seasons combined remained unchanged at 20 years.