# Surveillance of Influenza A virus in Danish pigs

Samples and results 2025

The table illustrates the number of samples, submissions and herds that contributed to the surveillance program each month and for the whole year. In addition, the results of the influenza A virus and H1pdm09 screening are shown.

|	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Received													
Samples	60	151	124	148	67	110	93	123	172	230	176	200	1654
Submissions	22	52	43	42	21	33	26	37	46	59	53	58	492
Herds	22	51	41	42	21	29	25	36	44	59	50	58	-
Influenza positive													
Samples	28	69	42	60	27	39	25	50	72	115	71	85	683
Submissions	11	31	19	25	12	18	13	22	29	42	28	35	285
Herds	11	31	19	25	12	18	13	21	28	42	27	35	
H1pdm09 positive													
Samples	13	14	21	25	13	17	11	14	23	36	20	37	244
Submissions	5	10	9	13	5	7	5	7	10	15	8	14	108
Herds	5	10	9	13	5	7	5	7	10	15	8	14	-

In December, 58 submissions from 58 herds registered with different CHR numbers were received. On average, each submission consisted of 3.4 samples. The percentage of influenza positive submissions was 60 % resembling the level observed in August and September. All influenza A virus-positive samples were tested for the presence of H1pdm09. Overall, 40 % of the submissions testing positive for the influenza A virus were positive for H1pdm09.
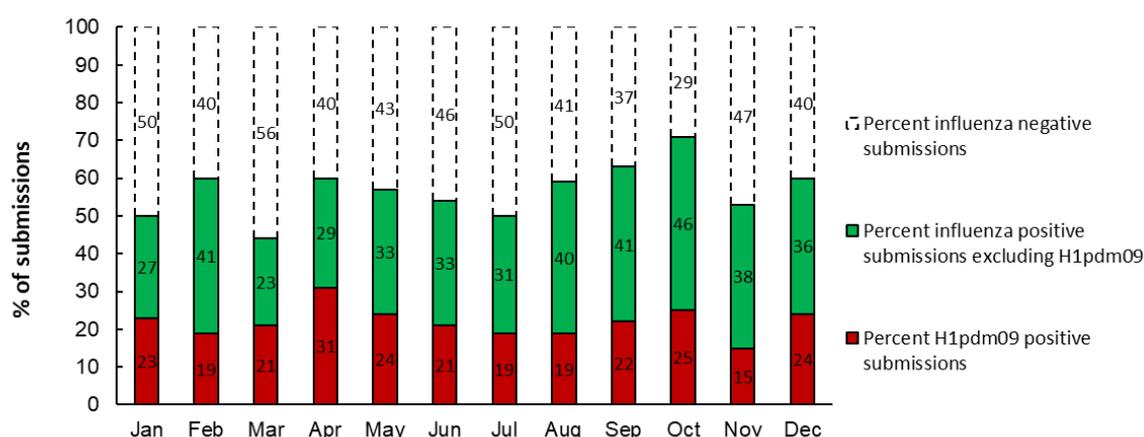
The figure illustrates the percentage of influenza A virus negative and positive submissions including the proportion of H1pdm09 positive submissions.

Distribution of swine influenza A virus subtypes

Swine influenza A virus can be classified into subtypes and genotypes. The subtype describes the combination of HA and NA surface gene segments, and the genotype describes the combination of all eight genome segments based on their genetic origin. Information on the contemporary circulating swine influenza A virus subtypes is essential for the update of vaccination protocols, optimization of the diagnostic assays and for evaluation of the zoonotic risk.
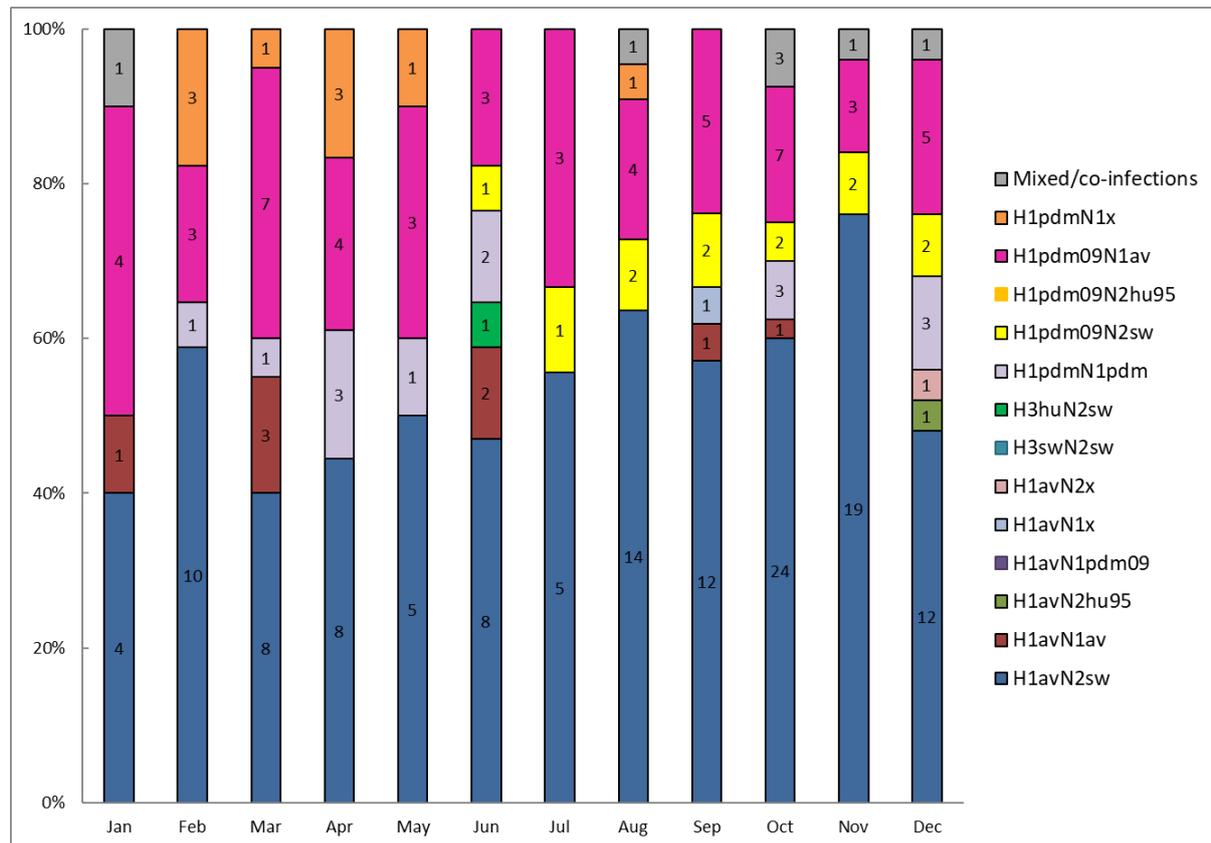
In December, the full subtype (both HA and NA gene segments) was identified for 25 submissions. The majority were of the H1avN2sw subtype (n=12) while the H1pdm09N1av was observed in five submissions. In addition, H1pdmN1pdm and H1pdmN2sw were observed in three and two submissions, respectively. H1avN2hu95 was observed in a single submission for the first time since 2022. In addition, a submission was positive for H1avN2x carrying a novel N2 gene, that remains to be fully classified. This month one submission showed signs of co-infections with several swIAV strains.

Distribution of swine influenza A virus genotypes
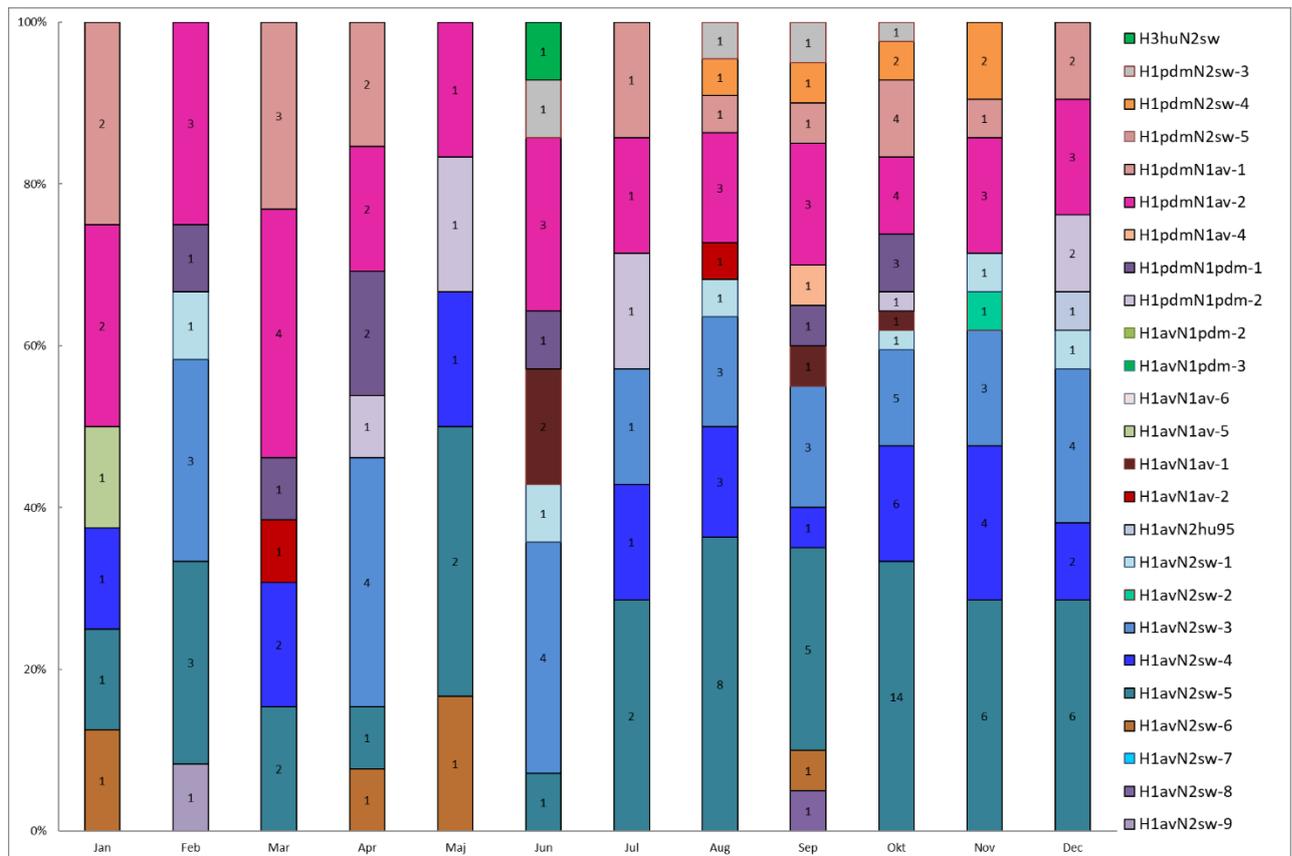
For December, 22 submissions were genotyped. In total eight different genotypes were observed, with H1avN2sw-5 being most often detected (n=6). In addition, the H1avN2sw-3 and H1pdmN1av-2 genotypes were also observed in four and three submissions respectively, both carrying an NS segment of Eurasian avian-like origin, whereas the remaining internal genes are of H1N1pdm09 origin.

Phylogenetic analysis

Fylogenetisk træ - influenza A virus overvågning i danske grise
December 2025
FIND DIN PRØVE: Tryk "ctrl + f" og søg på dit sagsnummer: fx "25-03138-4"
Vær opmærksom på at prøver indsendt til SSI starter med "SI" eller "SIO" og er navngivet med SSI's sagsnummer, mens prøver indsendt til Veterinært laboratorium, Kjellerup starter med "LF" og er navngivet med Kjellerups sagsnummer.

1A, 1B og 1C clades (i følge BV-BRC.org) er angivet på referencesekvenser som suffix i sekvensnavnet

H1pdmN1av/H1pdmN2av
(Ny reassortant med pandemisk H1 og aviært N1 fra den "almindelige" danske H1N1 eller N2av fra den almindelige danske H1avN2av)

Svine adapteret H1pdmNx
(Virus der stammer fra pandemien i 2009, men er muteret for at tilpasse sig svin)

Human season like H1pdmNx
(Virus der ligner den pandemiske season influenza, der cirkulerer i mennesker)

H1pdm vaccine stæmme fra Respiporc FLUpan H1N1

H1av vaccine stæmme fra Respiporc FLU3

H1avNx
(Indeholder både H1avN2av, som har været den mest almindelig subtype i Danmark og aviær H1 subt/av, som var den første influenza vi så i Danske svin)

0.08