



EUROPEAN COMMISSION
HEALTH & CONSUMERS DIRECTORATE-GENERAL

Directorate D – Animal Health and Welfare
D1 - Animal Health and Standing Committees
04 – Veterinary control programmes

SANCO/2179/2008 Rev.1

Annual Report on surveillance for avian influenza in poultry in the EU during 2007



**Veterinary
Laboratories
Agency**

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EXECUTIVE SUMMARY

Avian influenza (AI) is an infectious viral disease of poultry. The majority of AI infections in poultry are of low pathogenicity, causing mild clinical signs. Some AI viruses (subtypes H5 and H7) have the potential to mutate into highly pathogenic strains that can cause very high mortalities in some poultry species. Since 2003 the European Union (EU) has introduced serological surveys to detect subclinical infections with low-pathogenic Avian Influenza (LPAI) and to contribute to the disease-free status of a country.

The survey was conducted between January and December 2007 according to EU harmonised guidelines. All 27 Member States (MS) participated in the survey and a total of 126,912 poultry holdings were sampled. This compares to 29,005 sampled holdings in 2006. The large majority of these holdings were backyard holdings. The main increase in the number of holdings sampled is attributable to the large number of holdings sampled in RO and BG. The total number of holdings included in the survey varied from 23 (EE) to 86,056 (RO). Targeting of free-range flocks was carried out for layers in DK, FI, FR, HU, and SE and for broilers in FR, IE, IT, and PT. Compared to 2006, several MS increased the number of game bird holdings in the survey and a higher number of backyard flocks were sampled in several MS.

As in previous years the overall EU LPAI H5/H7 apparent prevalence (AP) was very low (0.11%, Upper 95% confidence interval [UCI]: 0.125%). One hundred and seven holdings tested positive for the H5 subtype in 13 MS (AP: 0.08%, 95% UCI: 0.099%, MS AP Range: 0 - 6.3%, 95% MS UCI range: 0.005 - 8.60%) and thirty-six holdings tested positive for subtype H7 in seven MS (AP: 0.03%, 95% UCI: 0.04%, MS AP range: 0–1.5%, 95% MS UCI range 0.003 - 3.43%). Fifty-three holdings (0.04%, 95% UCI: 0.05%) tested positive for other subtypes in eight MS (MS AP range: 0.07–100%, 95% UCI range 0.2–100%). No positive holdings were found in the chicken breeder, turkey breeder and ratite categories.

Overall 13 holdings (12%) tested positive on PCR and/or isolation for subtype H5, meaning that in 12% of the holdings identified with subtype H5 infection was still active. For H7 twelve holdings were positive on PCR and/or virology, meaning that in a third (33%) of the H7 positive holdings the infection was still active. Five holdings tested positive for both subtypes H5 and H7 on serology and/or PCR.

In this year's survey six MS (CZ, EE, IE, PT, SE and SK) found positive holdings through this survey for the first time since 2003/2004. In five MS (BE, DK, ES, IT and the UK) positive holdings were found in more poultry categories than in the previous survey.

The highest apparent prevalence for H7 was observed in holdings in the 'others' category (AP: 0.78%, 95% UCI: 1.21%). The highest apparent prevalence for H5 (AP: 2.17%, 95% UCI: 2.54%) was observed in ducks and geese, again reflecting findings of previous years with no obvious increase. The high apparent prevalence may have been influenced by a larger within flock sample size, the frequent outdoor production of ducks and the subclinical appearance of the disease in this species.

A basic comparison of the overall prevalence of AI between free-range layers and non free-range layers did not reveal large differences between the two housing systems and the apparent prevalences were (AP: 0.15%, 95% UCI: 0.39%) and (AP: 0.09%, 95% UCI: 0.14%) respectively. None of the free-range broiler holdings tested positive. Considering that being free-range is frequently considered to be the main risk factor for infection with avian influenza viruses through contact with wild birds, a relatively low prevalence of H5/H7 was observed in backyard flocks, suggesting that other factors such as life span, trading and movement patterns, density of kept poultry and other factors may also affect the prevalence of avian influenza. In none of the categories of poultry sampled in 2007 were important changes in the prevalence observed compared to previous years at the EU level. The survey results also appear to indicate that for LPAI H5/H7 there is no major change in the prevalence in the different categories since 2004 although variations at country level occur. The variation in sampling strategies and survey design that occurs in the EU poultry survey has an impact on the comparability of the results between MS.

The survey continues to improve knowledge on which sectors of the poultry industry are more likely to be infected by H5/H7 LPAI (i.e. ducks and geese) and identified other sectors which are less likely to be affected (i.e. broilers and turkey/chicken breeders). This knowledge combined with information on where a potential mutation to highly pathogenic avian influenza would have the biggest impact, i.e. poultry density could be used for targeting the survey towards these factors especially when occurring in combination.

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INTRODUCTION

Experience has shown that some strains of the H5 and H7 subtypes of AI viruses have the ability to mutate to highly pathogenic strains after circulation within the poultry population.

The Scientific Committee on Animal Health and Animal Welfare (SCAHAW, 2000) recommended the implementation of serological surveys of poultry populations in MS in order to detect the presence of low pathogenic avian influenza (LPAI) viruses of H5 and H7 subtypes.

Since 2003 (EC, 2002) Member States have been carrying out compulsory surveillance in poultry according to harmonised guidelines and programmes approved by the Commission.

OBJECTIVES

The objectives of the serological surveillance for LPAI subtypes H5 and H7 in poultry in 2007 are:

1. Detecting sub-clinical infections with LPAI of subtypes H5 and H7 thereby complementing early detection systems and subsequently preventing possible mutation of these viruses to HPAI.
 2. Detecting infections of LPAI H5 and H7 subtypes in specifically targeted poultry populations at specific risk for infection due to their husbandry system or the susceptibility of specific species.
 3. Contributing to the demonstration of a free status of a certain country, region or compartment from notifiable avian influenza in the frame of international trade according to OIE rules.
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MATERIALS AND METHODS

Survey design

The survey design in 2007 was based upon harmonised guidelines laid down in Document SANCO/268/2006 Rev. 5. The guidelines have last been updated by Commission Decision 268/2007/EC (EC 2007).

The survey programmes

The surveillance programmes carried out by MS during 2007 were evaluated and approved by the European Commission through Decisions 2006/875/EC and 2006/876/EC (for BG and RO).

Details of the survey programmes for each Member State are available on the Internet at http://ec.europa.eu/food/animal/diseases/eradication/programme2007/2006_875_ec.pdf and http://ec.europa.eu/food/animal/diseases/eradication/programme2007/2006_876_ec.pdf

Testing of Samples

Samples were requested to be tested in accordance with the diagnostic manual (EC, 2006)

Data Processing and Completeness

This report is restricted to data that were collected and submitted to the Commission under approved programmes according to Decisions 2006/875/EC and 2006/876/EC.

The category “others” contains the following type of holdings reported:

| Member State | Category Species Detail |
|--------------|---------------------------------|
| BE | Exotic Chicken trader |
| BG | Zoo, hatchery |
| DE | Zoo birds, Passeriformes |
| HU | Ornamental bird, pigeons |
| IT | Hobby Flock, Dealer/Dealer Farm |
| LT | Decorative pigeon |
| RO | Zoo |

If holdings were reported as “other”, but could be identified as one of the given categories, they were re-assigned to these categories. For example FR submitted data on holdings sampled and positive in the ‘Others’ category, which were reassigned to more appropriate categories. These included breeder palmipeds, which have been reported here in either the breeder ducks or breeder geese category.

PT submitted data in the ‘others’ category for quail holdings. These were reassigned to the game bird holdings, although these birds were for human consumption only.

If the total number of holdings reported by a MS was not consistently reported, the information was supplemented by the 2007 survey programme for the respective MS.

Where positives were found in two or more poultry categories on the same holding, they were each reported in the corresponding category as a positive holding.

For the comparison of survey results according to poultry categories across years and for the assessment of the collected sample size, free- range and indoor categories were combined

Maps were produced using the ArcMap function of Arc GIS version 9.1.

Samples are displayed at NUTS 2 level and positive holdings at NUTS 2 or 3. However, if the NUTS codes reported were not valid/did not match, holding and sampled numbers were averaged and displayed at NUTS 1 or NUTS 0. If the sampled holdings were not reported by NUTS code, only the data from the remaining quarters was mapped (NL).

Prevalence Confidence Intervals

The upper one-sided 95% confidence limits for prevalence were calculated as follows:

Total number of holdings unknown: If information on the total number of holdings was not available then the exact binomial limit was calculated based on the total number of holdings

sampled – this will result in an over-estimate of the upper one-sided 95% confidence limit for prevalence.

Total number of holdings sampled greater or equal to the total number of holdings: a confidence limit cannot be calculated. Assuming all holdings were sampled and that there was no more than one positive sample per holding, the prevalence is then known exactly. The value given is the holding prevalence estimated on this basis.

Total number of holdings sampled less than total number of holdings: approximate limit using the hypergeometric distribution. If the total number of holdings was known, the hypergeometric distribution was applied to derive confidence intervals.

Adjustments and assumptions:

If it could be assured that all holdings of a category were sampled or repetitively sampled, no confidence intervals were calculated and only the apparent prevalence was reported.

If the total number of holdings was not provided the total number of holdings in a category reported in the previous year was used for the calculation of confidence intervals, if available.

The sensitivity of the diagnostic test was assumed to be 100 percent. As the number of birds sampled is not reported in the current reporting format, it was assumed that the stated procedure was correctly followed and that at least 5-10 birds were selected at random from each holding.

GLOSSARY OF ABBREVIATIONS

MS: Member State(s)

EU: European Union

EC: European Commission

AI: Avian Influenza

LPAI: Low Pathogenic Avian Influenza

HPAI: Highly Pathogenic Avian Influenza

NUTS: Nomenclature of Units for Territorial Statistics

CRL: Central Reference Laboratory

Table 1 Key to Member States abbreviations

| Abbreviation | Country |
|--------------|-----------------|
| AT | Austria |
| BE | Belgium |
| BG | Bulgaria |
| CY | Cyprus |
| CZ | Czech Republic |
| DE | Germany |
| DK | Denmark |
| EE | Estonia |
| EL | Greece |
| ES | Spain |
| FI | Finland |
| FR | France |
| HU | Hungary |
| IE | Ireland |
| IT | Italy |
| LT | Lithuania |
| LU | Luxembourg |
| LV | Latvia |
| MT | Malta |
| NL | Netherlands |
| PL | Poland |
| PT | Portugal |
| RO | Romania |
| SE | Sweden |
| SI | Slovenia |
| SK | Slovak Republic |
| UK | United Kingdom |

RESULTS

Overview of sampling and survey design

Unless specified otherwise, all totals and overall proportions refer to 27 EU MS.

- In 2007 a total of 3,412,997 poultry holdings were reported to be present in the MS and 126,912 of these were sampled by the 27 MS in their approved AI surveillance programmes. This compares to 29,005 holdings in 2006. The main increase in the number of holdings sampled is attributable to the large number of holdings sampled in RO (*86,056 holdings sampled, 67% of all holdings sampled in EU, of which 83,244 were backyard holdings*) and BG (*11,849 sampled holdings, 9.3% of all sampled EU holdings, of which 8,667 backyard holdings*), who joined the EU as of 1 January 2007 and were therefore not included in previous surveys.
- The categories of poultry and number of holdings that were sampled in 2007 are displayed in Table 2. Table 1 in Annex II shows the number and proportion of total holdings sampled by MS and category of poultry
- In general the survey programmes were quite variable between MS. Some MS sampled only the requested samples size or less, whilst a number of others (for example BG, IT, DK, RO and NL) sampled much higher numbers of holdings and in case of NL and DK most holdings were sampled more than once.
- The total number of holdings sampled/included in the survey varied from 23 (EE) to 85,056 (RO). While some MS increased the total number of holdings sampled compared to 2006, for example IT and DK, others decreased the number of holdings sampled (for example NL and PT).
- Only some MS targeted sampling towards free-range holdings in the categories layers and broilers: Assuming that the number of total holdings reported represents the total number of holdings in a country, for layers these were DK, FI, FR, HU, and SE, for broilers FR, IE, IT, and PT. Fourteen MS did not sample any free-range layer holdings and eleven (11) MS that included broilers in their survey design did not sample any free-range broilers.
- More MS included backyard flocks in their surveillance programmes than in previous years and several MS increased the number of game bird holdings in the survey.

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| Table 2 Total number of holdings sampled in the 2007 AI survey by Member States and poultry category | | | | | | | | | | | | | | | | |
|--|------------------|-------------|------------------------|----------|---------------------|------------------|-----------------|-----------------|-----------------|---------------|-----------------|---------------|------------|---------|--------|------------------------|
| MS | Chicken Breeders | Laying Hens | Free Range Laying Hens | Broilers | Free Range Broilers | Turkey Fatteners | Turkey breeders | Backyard Flocks | Fattening Ducks | Breeder Ducks | Fattening Geese | Breeder Geese | Game Birds | Ratites | Others | Total Holdings sampled |
| AT | | 60 | | | | 75 | | | 6 | | 31 | | | 5 | | 177 |
| BE | 204 | 303 | 84 | | | 45 | 3 | 24 | 16 | 4 | | 3 | 16 | 19 | 1 | 722 |
| BG | 115 | 1348 | | 210 | | 1 | 45 | 8667 | 1348 | 0 | | | 113 | 1 | 1 | 11849 |
| CY | 22 | 41 | | 2 | | 5 | | 30 | 2 | | | | 5 | 8 | 16 | 131 |
| CZ | | 48 | | 1 | | 57 | | | | 25 | | 15 | 12 | | | 158 |
| DE | 8 | 126 | 27 | 3 | | 91 | 23 | 220 | 188 | 10 | 115 | 14 | 9 | 13 | 3 | 850 |
| DK | 490 | 86 | 341 | | 0 | 66 | | | 8 | 13 | 4 | 13 | 265 | | | 1286 |
| EE | 1 | 21 | | 0 | | 0 | | 0 | | | | | 1 | 0 | | 23 |
| EL | 35 | 63 | | 66 | 4 | 27 | 1 | 25 | 1 | | | | 14 | 4 | | 240 |
| ES | 169 | 458 | 11 | 416 | 1 | 180 | 15 | 3480 | 40 | | 3 | | 134 | 31 | 316 | 5254 |
| FI | 30 | 16 | 8 | 26 | | 25 | 9 | 1 | 5 | 1 | 3 | 1 | 11 | 7 | | 143 |
| FR | | | 60 | | 145 | 144 | 73 | 113 | 170 | 305 | | 61 | 124 | | | 1195 |
| HU | 39 | 186 | 6 | 5 | | 130 | 8 | 1897 | 126 | 12 | 194 | 16 | 40 | 10 | 7 | 2676 |
| IE | 91 | 59 | 65 | | 9 | 47 | 2 | | 1 | | | | 1 | | | 275 |
| IT | 693 | 2567 | 307 | 35 | 9 | 2127 | 128 | 1903 | 236 | 67 | 92 | 16 | 911 | 128 | 1020 | 10239 |
| LT | 4 | 28 | | 44 | | | 13 | | 7 | | 4 | | | | 7 | 107 |
| LU | | 20 | | 2 | | | | 14 | | | | | | 4 | | 40 |
| LV | 1 | 24 | | | | 1 | | 81 | 2 | | 3 | | | 2 | 5 | 119 |
| MT | | 30 | | | | | | | | | | | | | | 30 |
| NL | 468 | 1341 | 239 | 685 | | 127 | 6 | | 40 | 7 | | | | | | 2913 |
| PL | 107 | 151 | | | | 169 | | | 17 | 11 | 80 | 49 | 18 | 28 | | 630 |
| PT | 54 | 95 | | 1 | 215 | 103 | | 200 | 15 | 1 | | | 87 | 4 | | 775 |
| RO | 11 | 936 | 157 | 374 | 450 | 185 | 68 | 83244 | 214 | 109 | 149 | 88 | 58 | | 13 | 86056 |
| SE | 40 | 42 | 18 | 17 | | 23 | 4 | | 3 | | 16 | | 30 | 10 | | 203 |
| SI | 11 | 54 | | | | 45 | | | | | | | 9 | 18 | 12 | 149 |
| SK | 13 | 65 | | 155 | | 13 | 3 | 2 | 8 | | | 1 | 44 | 24 | 4 | 332 |
| UK | 40 | 52 | 11 | | | 79 | 8 | | 41 | | 66 | | 25 | 9 | 9 | 340 |
| EU Total | 2646 | 8220 | 1334 | 2042 | 833 | 3765 | 409 | 99901 | 2494 | 565 | 760 | 277 | 1927 | 325 | 1414 | 126912 |

= appropriate number of holdings were sampled by a Member State*
 = less than the required number of holdings were sampled*
 = number can not be assessed i.e. no total holdings reported

*established based on total number of holdings data reported by MS

Overview of positive results

A total of 138 holdings (AP: 0.11%, 95% UCI: 0.13%) tested serologically and/or virologically positive for H5/H7 subtypes, 107 (AP: 0.08%, 95% UCI: 0.099%) holdings for H5 and 36 for H7 (AP: 0.03%, 95% UCI: 0.037%) in 13 MS (Table 3).

Five holdings tested positive for both subtypes H5 and H7 on either serology or PCR/virology or both. Thirteen holdings were positive for H5 by serology and PCR/virology, or PCR/virology only, and 12 holdings were positive for H7 by serology and PCR/virology or PCR/virology only. Tables One-Four in Annex III provide details of numbers of holdings positive for H5 or H7 by serology and/or PCR/virology

At MS level the overall apparent prevalence ranged from 0.001 - 6.33% for H5 (95% UCI range 0.005 - 8.60%) and 0 - 1.48% for H7 (95% UCI range: 0.003-3.43%).

The highest apparent prevalence for H5 was observed in CZ and for H7 the highest apparent prevalence was observed in SE.

| Table 3: Total number of sampled holdings and number of H5 and H7 positive holdings by Member State | | | | | | | | | |
|---|--------------------------------|---|------------------------------|-----------|--------------------------------|---|---------------------------------------|------------------------------|----------------------------------|
| MS | Number of H5 positive holdings | Number of H5 PCR/VIRO positive holdings | H5 apparent flock prevalence | H5 95% CI | Number of H7 positive holdings | Number of H7 PCR/VIRO positive holdings | H7 apparent flock prevalence (95% CI) | H7 apparent flock prevalence | Total Number of Holdings sampled |
| BE | 5 | 0 | 0.69 % | 1.15% | 2 | 0 | 0.28 % | 0.57% | 722 |
| CZ | 10 | 2 | 6.33 % | 8.60% | 0 | 0 | 0 % | 1.40% | 158 |
| DE | 3 | 2 | 0.35 % | 0.91% | 0 | 0 | 0 % | 0.35% | 850 |
| DK | 9 | 0 | 0.69 % | 0.72% | 1 | 0 | 0.08 % | 0.08% | 1286 |
| ES* | 9 | 3 | 0.17 % | 0.29% | 3 | 1 | 0.06 % | 0.14% | 5254 |
| FR | 49 | 0 | 4.1 % | 5.20% | 1 | 0 | 0.08 % | 0.39% | 1195 |
| FI | 1 | 0 | 0.70% | 3.14% | 0 | 0 | 0% | 2.0% | 143 |
| IT | 2 | 1 | 0.02 % | 0.06% | 25 | 11 | 0.24 % | 0.33% | 10239 |
| PL | 2 | 0 | 0.32 % | 0.83% | 0 | 0 | 0 % | 0.41% | 630 |
| PT | 4 | 4 | 0.52 % | 1.18% | 0 | 0 | 0 % | 0.38% | 775 |
| RO | 1 | 1 | 0.001% | 0.005% | 0 | 0 | 0% | 0.003% | 86056 |
| SE** | 3 | 0 | 1.48 % | 3.43% | 3 | 0 | 1.48 % | 3.43% | 203 |
| UK | 9 | 0 | 2.65 % | 4.51% | 1 | 0 | 0.29 % | 1.35% | 340 |
| EU Total | 107 | 13 | 0.08 % | 0.099% | 36 | 12 | 0.03 % | 0.037% | 126912 |

*Two holdings positive for both H5 and H7 **Three holdings positive for both H5 and H7

Figure 1 is a randomized dot density map and displays the number of total holdings sampled (1 dot = 1 holding sampled) randomized by NUTS2/NUTS 1/NUTS 0 codes, depending on data availability, as well as the holdings found positive in this survey for subtype H5 (characterized by star) and subtype H7 (characterized by diamond) .

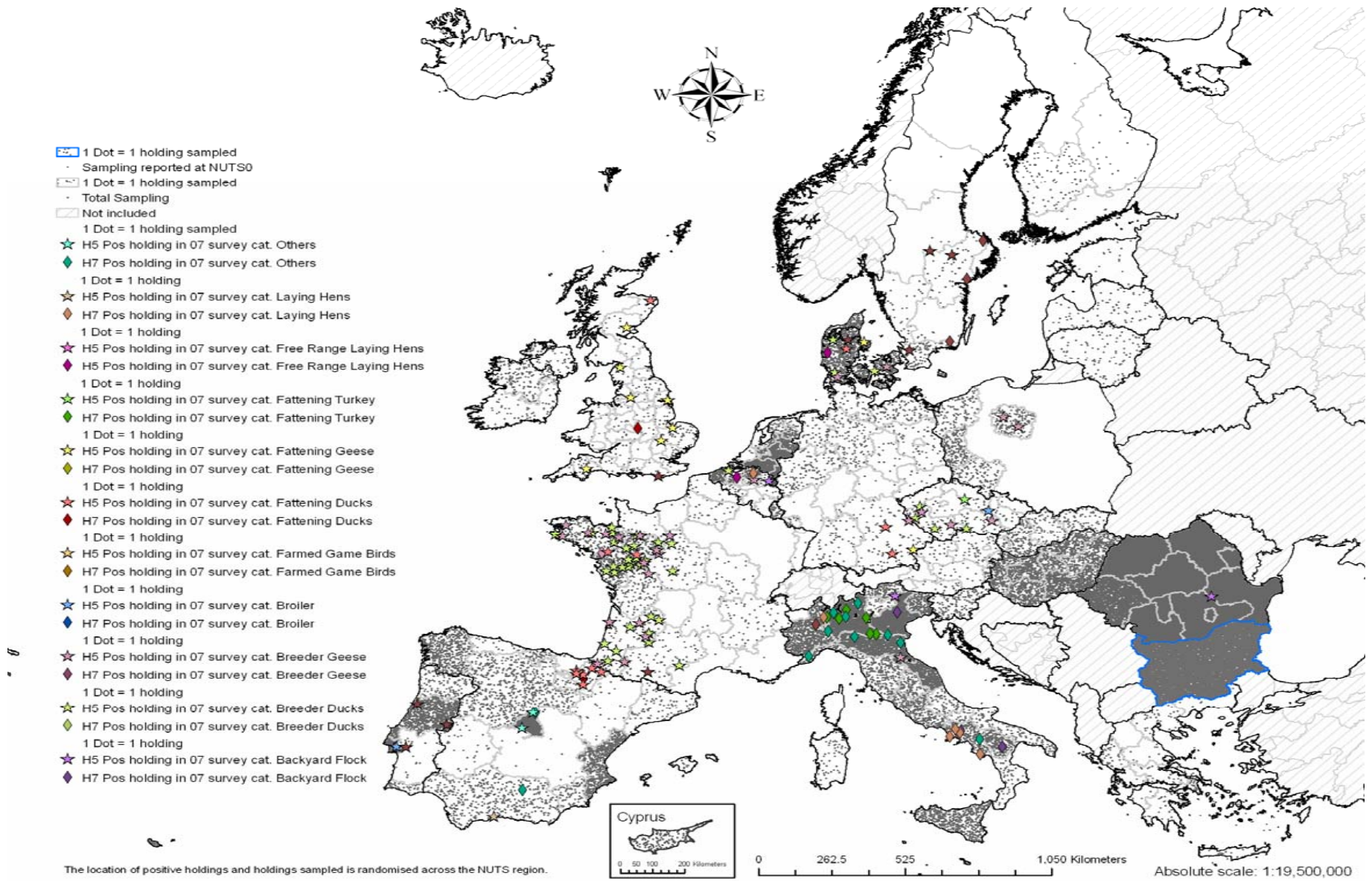


Figure 1 Randomized dot density map of total holdings sampled in the EU AI poultry survey, positive holdings for H5 and H7 by category of poultry

Table 4 presents an overview of the results by poultry category.

- As in previous years, duck and geese holdings were the category with the highest apparent prevalence of 2.2% (95% UCI: 2.59% AP range: 0-23.7%) for H5 and H7 subtypes. In general but especially in ducks and geese the subtype H5 was much more prevalent than subtype H7. Among ducks and geese, breeder geese showed the highest apparent prevalence (10.1%, AP range: 0- 33%, 95% UCI: 13.1%, range 95% UCI for MS with positive holdings: 11.5 - 36.6%, range 95% UCI for MS with only negative holdings: 0 - 88.9%) for subtype H5. The ducks and geese category with the second highest prevalence for H5 was breeder ducks: AP: 7.26%, 95% UCI: 9.14% (AP range: 0-50%, 95%, UCI range for MS with positive results: 13-50%, and UCI range for MS with negative results: 0-33.1%). The category with the third highest apparent prevalence was fattening geese (AP: 1.2%, AP range: 0 - 33%, 95%UCI: 1.79%, (95% UCI range for MS with positive results: 4.1-33.3%, and the 95% UCI range for MS with negative results: 0-52.3%), and then fattening ducks (0.44% apparent prevalence, AP range: 0-15%, 95% CI: 0.69%, 95% UCI range for MS with positive results: 3.3 - 24.3%, 95% UCI range for MS with negative results: 0 - 66.7%).
- In all other categories the apparent prevalence for H5 stayed below 0.5% (95% UCI: 0.10%, AP Range: 0.008-0.85%, 95% UCI range for MS with positive results: 0-100%, 95% UCI range for MS with negative results: 0-95%) (Table 5a).
- Unlike in the 2006 survey H5/H7 LPAI was detected in two broiler holdings (CZ and PT).
- Three holdings (fattening ducks from Spain) tested positive for subtype H5 on PCR/Virology and seven holdings (mainly game birds) tested positive on PCR or virology meaning birds were actively excreting the virus at the time of the survey (Detailed results displayed in Annex III).
- The apparent prevalence for H7 was overall very low and stayed below 1% in all the categories. The overall apparent prevalence was 0.03% (95% UCI: 0.037%). The highest prevalence of H7 was observed in birds of the category "others" of 0.78% (AP range: 0 - 0.88%, 95% UCI of 1.11%, with the 95% UCI range for MS with positive results: 0.82-1.9%, and 95% UCI range for MS with negative results: 0-67%). The positive holdings included dealer farms, exotic chicken trader and hobby flocks. An apparent prevalence of 0.2% (AP range: 0-10%) was observed in game birds (95% UCI: 0.45%, 95% UCI Range for MS with positive results: 0.14-10%, 95% UCI range for MS with negative results: 0-90.8%). In all other categories the H7 prevalence stayed below 0.2% (95% UCI range 0.009-0.89%, 95% UCI range for MS with positive results 0.3-11%, 95% UCI Range for MS with negative results 0-95%) (Table 5b).
- One holding tested positive for subtype H7 on PCR/Virology but not on serology (this holding as also positive for H5 by PCR/virology but not serology). Four holdings tested positive for H7 on PCR or virology and serology was not performed.
- In this year's survey six MS (CZ, EE, IE, PT, SE and SK) found positive holdings through this survey for the first time since 2003/2004. BG and RO, who were not part of the survey in previous years also found positive holdings in 2007. In five MS (BE, DK, ES, IT and the UK) cases were found in more categories of poultry than in previous years.
- Tables 5a and 5b show the apparent prevalence by poultry category in the years 2004- 2007 for H5 and H7 respectively, in spite of some variations, important changes in the prevalence did not occur in any of the categories.
- Tables comparing the prevalence across years by poultry category are displayed in Annex I.
- Tables displaying detailed results for the prevalence of H5 and H7 respectively are displayed in Annex III.
- Tables displaying the results and category of poultry for holdings positive on PCR/Virology are displayed in Annex III.

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| Member States | Table 4 Total number of sampled and positive holdings and upper 95% confidence limit for overall prevalence of H5 & H7 by Member States and poultry category | | | | | | | | | | | | | | | |
|---|--|-----------------|------------------------|-----------------|---------------------|------------------|------------------|--------------------------|-----------------------|-----------------|-----------------|------------------------|---------------------|--------------|-----------------|------------------|
| | Chicken Breeders | Laying Hens | Free Range Laying Hens | Broilers | Free Range Broilers | Turkey Fatteners | Turkey breeders | Backyard Flocks | Fattening Ducks | Breeder Ducks | Fattening Geese | Breeder Geese | Game Birds | Ratites | Others | Total |
| AT | | 60 4.8% | | | | 75 3.5% | | | 6 0% | | 31 0% | | | 5 0% | | 177 |
| BE | 204 1.2% | 1/303 1.05% | 1/84 3.1% | | | 45 0% | 3 0% | 1/24 13.3% | 16 14.9% | 2/4 50% | | 1/3 33.3% | 16 15.6% | 19 13.4% | 1/1 100% | 722 |
| BG | 115 0% | 1348 0% | | 210 0% | | 1 0% | 45 0% | 8667 0.03% | 1/1348 0.2% | | | | 113 0% | 1 95% | 1 67% | 11849 |
| CY | 22 0% | 41 0% | | 2 69% | | 5 37.5% | | 30 9.5% | 2 0% | | | | 5 28.6% | 8 30% | 16 17.1% | 131 |
| CZ | | 48 5.6% | | 1/1 100% | | 1/57 5.6% | | | | 4/25 20% | | 4/15 36.4% | 2/12 16.7% | | | 158 |
| DE | 8 31.2% | 126 2.34% | 1/27 10.5% | 3 63.2% | | 91 3.2% | 23 12.2% | 8/220 6.5% | 2/188 3.3% | 10 25.9% | 1/115 4.1% | 14 19.3% | 9 28.30% | 13 20.5% | 3 63.2% | 850 |
| DK | 490 0% | 86 0% | 1/341 0.8% | | | 66 4.1% | | | 8 30.6% | 5/13 45.5% | 4 52.3% | 4/13 40% | 2/265 0.76% | | | 1286 |
| EE | 1 0% | 5/21 43.6% | | | | | | | | | | | 1 90.8% | | | 23 |
| EL | 35 7.8% | 63 4.5% | | 66 4.4% | 4 44.2% | 27 9.6% | 1 0% | 25 11.3% | 1 0% | | | | 14 16.9% | 4 42.9% | | 240 |
| ES | | 1/458 4/458 | | | | | | | 6/40 1/40 | | | | 1/134 | | 2/316 2/316 | |
| | 169 1.7% | 11 23.5% | 416 0.7% | 1 0% | 180 1.6% | 15 17.7% | 24/3480 0.95% | 2/40 24.3% | | 3 25% | | | 2.05% | 31 9% | 2.4% | 5254 |
| FI | 30 8.4% | 16 17.0% | 8 30.4% | 26 8.4% | | 25 10.7% | 9 0% | 1 0% | 5 0% | 1 0% | 1/3 33.3% | 1 88.9% | 11 21.8% | 7 0% | | 143 |
| FR | | | 60 4.8% | | 145 2.0% | 144 2.0% | 73 3.9% | 113 2.6% | 2/170 3.6% | 30/305 13.0% | | 16/61 1/61 38.4% | 1/124 3.8% | | | 1195 |
| HU | 39 7.0% | 186 1.5% | 6 0% | 5 36.8% | | 130 2.1% | 8 0% | 1897 0.16% | 126 2.2% | 12 20.7% | 194 1.5% | 16 15.9% | 40 6.2% | 10 23.4% | 7 34.8% | 2676 |
| IE | 91 0% | 59 4.4% | 1/65 5.1% | | 9 0% | 47 5.8% | 2 75% | | 1 66.7% | | | | 1/1 100% | | | 275 |
| IT | 693 0% | 5/2567 0.4% | 307 0% | 35 8.2% | 9 28.0% | 6/2127 1.2% | 128 0% | 1/1903 4/1903 0.6% | 236 0% | 67 0% | 92 0% | 1/16 12.5% | 1/911 0.14% | 128 2.1% | 0.99% | 9/1020 |
| LT | 4 0% | 28 0% | | 44 0% | | | 13 0% | | 7 0% | | 4 0% | | | | 7 0% | 107 |
| LU | | 20 0% | | 2 50% | | | | 14 19.2% | | | | | | 4 0% | | 40 |
| LV | 1 0% | 24 10.1% | | | | 1 0% | | 81 3.6% | 2 0% | | 3 0% | | | 2 0% | 5 0% | 119 |
| MT | | 30 9.4% | | | | | | | | | | | | | | 30 |
| NL | 468 0% | 1341 0.2% | 239 0% | 685 0% | | 127 0% | 6 0% | | 40 6.6% | 7 33.1% | | | | | | 2913 |
| PL | 107 2.4% | 151 1.8% | | | | 169 1.5% | | | 17 16% | 11 23.7% | 80 3.5% | 2/49 11.5% | 18 0% | 28 8.9% | | 630 |
| PT | 54 0% | 95 1.8% | | 1/1 100% | 215 0% | 103 2.6% | | 200 1.5% | 15 0% | 1 0% | | | 3/87 7.76% | 4 43.6% | | 775 |
| RO | 11 0% | 936 0% | 157 1.6% | 374 0% | 450 0% | 185 1.4% | 68 3.6% | 1/83244 0% | 214 0% | 109 0% | 149 0% | 88 0% | 58 0% | | 13 0% | 86056 |
| SE | 40 6.4% | 42 6.8% | 18 14.9% | 17 14.1% | | 23 10.8% | 4 0% | | 3 0% | | 16 15.4% | | 3/30 3/30 10% | 10 24.3% | | 203 |
| SI | 11 0% | 54 5.0% | | | | 45 5.7% | | | | | | | 9 0% | 18 13.6% | 12 22% | 149 |
| SK | 13 19.9% | 65 0% | | 155 0% | | 13 0% | 3 25% | 2 0% | 1/8 14.3% | | | 1 50% | 44 0% | 24 0% | 4 33.3% | 332 |
| UK | 40 7.1% | 52 5.6% | 11 23.7% | | | 79 3.6% | 8 30.4% | | 1/41 1/41 14.4% | | 7/66 18.0% | | 1/25 15.1% | 9 27.6% | 9 28.3% | 340 |
| EU Total | 2646 | 8220 | 1334 | 2042 | 833 | 3765 | 409 | 99901 | 2494 | 565 | 760 | 277 | 1927 | 325 | 1414 | |
| % Of EU total | 2.08 | 6.48 | 1.05 | 1.61 | 0.66 | 2.97 | 0.32 | 78.72 | 1.97 | 0.45 | 0.60 | 0.22 | 1.52 | 0.26 | 1.11 | 126912 |
| EU Total H5/H7 positive holdings | 0 | 7 | 2 | 2 | 0 | 7 | 0 | 7 | 12 | 41 | 9 | 29 | 9 | 0 | 13 | 138 |
| % Positive holdings (95% CI) | 0 (0.11%) | 0.09 (0.14%) | 0.15 (0.39%) | 0.10 (0.29%) | 0 (0.34%) | 0.19 (0.27%) | 0 (0.48%) | 0.01 (0.01%) | 0.48 (0.75%) | 7.26 (9.14%) | 1.18 (1.79%) | 10.47 (13.5%) | 0.47 (0.79%) | 0 (0.85%) | 0.92 (1.39%) | 0.11 (0.125%) |
| Positive H5 | | | | | | | | | | | | | | | | |
| Positive H7 | | | | | | | | | | | | | | | | |
| Positive for subtypes other than H5 or H7 | | | | | | | | | | | | | | | | |

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| Table 5a: Apparent prevalence at EU level of H5 AI subtypes and sampled holdings in 2004, 2005, 2006 and 2007 by Poultry Category | | | | | | | | |
|--|------------------|------------------------------------|------------------|------------------------------------|------------------|------------------------------------|-------------------|------------------------------------|
| Poultry Category | 2004 | | 2005 | | 2006 | | 2007 | |
| | Positive/sampled | Apparent prevalence (Upper 95% CI) | Positive/sampled | Apparent prevalence (Upper 95% CI) | Positive/sampled | Apparent prevalence (Upper 95% CI) | Positive/sampled | Apparent prevalence (Upper 95% CI) |
| Chicken Breeders | 0/2146 | 0 (0.04%) | 2/2489 | 0.08% (N/A) | 0/2130 | 0 (0.11%) | 0/2646 | 0 (0.11%) |
| Laying Hens and Free-range laying hens | 0/5494 | 0 (0.05%) | 0/4494 | 0 (0.06%) | 4/8537 | 0.05% (0.08%) | 1/9554 | 0.01% (0.03%) |
| Broilers and Free-range Broilers | 0/3165 | 0 (0.09%) | 0/1967 | 0 (0.15%) | 0/2383 | 0 (0.11%) | 2/2875 | 0.07% (0.21%) |
| Fattening Turkeys | 1/2339 | 0.04% (0.19%) | 0/2058 | 0 (0.13%) | 1/1981 | 0.05% (0.21%) | 1/3765 | 0.03% (0.09%) |
| Breeder Turkey | 0/188 | 0 (1.31%) | 0/251 | 0 (1.03%) | 0/150 | 0 (1.82%) | 0/409 | 0 (0.48%) |
| Backyard Flocks | 0/16 | 0 (18.75%) | 0/247 | 0 (1.20%) | 2/9051 | 0.02% (0.07%) | 3/99901 | 0.003% (0.008%) |
| Ducks and Geese | 28/1106 | 2.5% (3.44%) | 64/1795 | 3.6% (4.34%) | 56/2176 | 2.6% (3.06%) | 89/4096 | 2.17% (2.54%) |
| Game Bird | 0/265 | 0 (0.93%) | 0/756 | 0 (0.33%) | 10/1500 | 0.67% (0.79%) | 9/1927 | 0.47% (0.72%) |
| Ralite | 2/662 | 0.30% (0.79%) | 1/352 | 0.3% (1.16%) | 2/448 | 0.45% (1.21%) | 0/325 | 0 (0.85%) |
| Other | 2/1958 | 0.1% (0.30%) | 1/1821 | 0.06% (0.24%) | 6/649 | 0.9% (1.74%) | 3/1414 | 0.21% (0.50%) |
| EU Total | 33/17339 | 0.19% (0.25%) | 68/16230 | 0.42% (0.51%) | 81/29005 | 0.28 (0.33%) | 107/126912 | 0.08% (0.10%) |

In 2006: One Game Bird holding positive for both H5 and H7. In 2007: One Duck and Geese holding positive for both H5 and H7; Three Game Bird holdings positive for both H5 and H7; One Other holding positive for both H5 and H7.

| Table 5b: Apparent prevalence at EU level of H7 AI subtypes and sampled holdings in 2004, 2005, 2006 and 2007 by Poultry Category | | | | | | | | |
|--|------------------|------------------------------------|------------------|------------------------------------|------------------|------------------------------------|------------------|------------------------------------|
| Poultry Category | 2004 | | 2005 | | 2006 | | 2007 | |
| | Positive/sampled | Apparent prevalence (Upper 95% CI) | Positive/sampled | Apparent prevalence (Upper 95% CI) | Positive/sampled | Apparent prevalence (Upper 95% CI) | Positive/sampled | Apparent prevalence (Upper 95% CI) |
| Chicken Breeders | 0/2146 | 0 (0.04%) | 1/2489 | 0.04% (N/A) | 1/2130 | 0.05% (0.15%) | 0/2646 | 0 (0.11%) |
| Laying Hens and Free-range laying hens | 1/5494 | 0.02% (0.09%) | 1/4494 | 0.02% (0.10%) | 1/8537 | 0.01% (0.04%) | 8/9554 | 0.08% (0.13%) |
| Broilers and Free-range Broilers | 2/3165 | 0.06% (0.17%) | 0/1967 | 0 (0.15%) | 0/2383 | 0 (0.11%) | 0/2875 | 0 (0.10%) |
| Fattening Turkeys | 27/2339 | 1.15% (1.53%) | 0/2058 | 0 (0.13%) | 0/1981 | 0 (0.11%) | 6/3765 | 0.16% (0.26%) |
| Breeder Turkey | 0/188 | 0 (1.31%) | 0/251 | 0 (1.03%) | 0/150 | 0 (1.82%) | 0/409 | 0 (0.48%) |
| Backyard Flocks | 0/16 | 0 (18.75%) | 0/247 | 0 (1.20%) | 0/9051 | 0 (0.03%) | 4/99901 | 0.004% (0.009%) |
| Ducks and Geese | 2/1106 | 0.2% (0.06%) | 4/1795 | 0.2% (0.50%) | 6/2176 | 0.3% (0.48%) | 3/4096 | 0.07% (0.18%) |
| Game Bird | 0/265 | 0 (0.93%) | 0/756 | 0 (0.33%) | 2/1500 | 0.13% (0.20%) | 4/1927 | 0.21% (0.45%) |
| Ralite | 1/662 | 0.15% (0.51%) | 0/352 | 0 (0.74%) | 0/448 | 0 (0.55%) | 0/325 | 0 (0.85%) |
| Other | 0/1958 | 0 (0.14%) | 0/1821 | 0 (0.14%) | 0/649 | 0 (0.43%) | 11/1414 | 0.78% (1.21%) |
| EU Total | 33/17339 | 0.19% (0.25%) | 6/16230 | 0.04% (0.07%) | 10/29005 | 0.03% (0.06%) | 36/126912 | 0.03% (0.04%) |

In 2006: One Game Bird holding positive for both H5 and H7. In 2007: One Duck and Geese holding positive for both H5 and H7; Three Game Bird holdings positive for both H5 and H7; One Other holding positive for both H5 and H7.

DISCUSSION

In many species infection with LPAI can result in only mild clinical signs and may go unnoticed. However, birds that are infected usually develop a serological reaction to infection that can remain present for extended periods of time. Therefore poultry categories with a longer lifespan have a higher probability of testing positive on serology as they had more time in which they could have become exposed to the virus. However a positive serological test result does not mean that the infection in the bird is still active with virus shedding. Therefore all holdings with sero-positive birds are subjected to a follow up investigation in accordance with the EU diagnostic manual. This investigation is primarily focused on determining if there is active infection by the detection of virus or viral RNA by virus isolation and/or PCR respectively. A positive PCR or virus isolation result indicates that the infection is still active and potential risk of transmission exists. Such a test result will lead to the implementation of restrictions and culling of the flock in accordance with Council Directive 2005/94/EC. In this year's survey 12 percent of the serologically positive holdings were also positive by PCR and/or virus isolation, indicating that only in every eighth serologically positive flock was infection still active at the time of the follow up investigation. The prevalence estimates across categories and MS assume that all sampling and testing regimens are the same. No weighting of prevalences or further adjustments were carried out. In reality however sampling regimens are very diverse with different degrees of targeting, testing frequency, varying numbers of samples collected in each flock and likely variance of within flock prevalences. Weighting could only be conducted if such parameters were included in the reporting of future survey results. The survey was designed to detect at least one positive flock if the flock level prevalence is at least 5%. Therefore in MS where no positive holdings were observed in spite of sufficient holdings sampled, LPAI may have been present but at a flock prevalence below 5%. Confidence intervals were calculated for the H5/H7 prevalence for each category and MS. While at EU level the upper 95% confidence interval (meaning that one can be 95% confident that the prevalence is not above this value) stayed below 0.5% in eight poultry categories, the upper confidence intervals were frequently relatively high for certain categories in most MS that did observe positives. Therefore it should be noted that a small sample size leads to higher upper confidence interval estimates.

The overall sero-prevalence of H5/H7 has not changed greatly over the last four years in which the survey has been conducted in any of the poultry categories tested, although variations especially between MS have occurred. Combined with the low overall prevalences observed in the survey it appears that H5/H7 in the EU poultry flocks is more of a sporadic disease that does not appear to be spreading in a significant manner. However the prevalence observed in ducks and geese is relatively high compared to the other poultry categories. This is especially true for the duck and geese breeder category for which in all MS in which positives occurred, the apparent prevalence was almost always above 10% and frequently exceeded 20%. However a high uncertainty is associated with this apparent prevalence as frequently the number of these flocks sampled in a MS was very low. The following factors are likely to contribute to this high apparent prevalence: firstly the sample size collected in duck and geese holdings is higher (40 samples compared to 5-10 in other holdings). If the prevalence in a flock is below the assumed 30%, it means that infection could have been present, but was not detected. Therefore it appears valuable to re-evaluate the assumption of a 30% within flock prevalence for other poultry categories based on findings observed during both the survey and outbreaks to confirm or adjust the assumption. Secondly, ducks are less likely to show clinical signs, so infection is less likely to have been detected previously and in other species, clinical disease due to AI may lead to removal of the flock. The fact that the two categories with the highest apparent prevalence were breeder ducks and geese could also be due to these animals having a longer lifespan and therefore a longer time period in which they could have been exposed to the virus. Besides this, these species are frequently kept outdoors and therefore also have a higher probability of contact with wild birds either directly or indirectly.

A very basic comparison of the overall prevalence of AI between free-range layers and non free-range layers did not reveal large differences between the two housing systems and the apparent prevalences were very low, 0.15% and 0.09% respectively. None of the free-range broiler holdings tested positive. Considering that being free-range is frequently considered to be the main risk factor for infection with avian influenza viruses through contact with wild birds, a relatively low prevalence of H5/H7 was also observed in backyard flocks, suggesting that other factors such as life span, trading and movement patterns, density of kept poultry and other factors may also affect

the prevalence of avian influenza. Collection of further data during the survey or conduction of a case control study could increase the knowledge of importance of these factors.

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ANNEX I DETAILS OF PREVALENCE BY POULTRY CATEGORY AND MS FOR 2004- 2007

| Member State | Table 1 Total number of Chicken Breeder holdings, total number sampled and total number of positive holdings reported for 2004, 2005, 2006 and 2007 by Member State | | | | | | | | | | | | | | | | | | | | | | | |
|--------------|---|-------------------------------|-------------------|----|---|---|-------------------------------|-------------------|----|---|---|-------------------------------|-------------------|----|---|---|-------------------------------|-------------------|------|---|--|--|--|--|
| | 2004 | | | | | | 2005 | | | | | | 2006 | | | | | | 2007 | | | | | |
| | Total No. of Holdings | Total No. of Holdings Sampled | Positive Holdings | | | Total No. of Holdings | Total No. of Holdings Sampled | Positive Holdings | | | Total No. of Holdings | Total No. of Holdings Sampled | Positive Holdings | | | Total No. of Holdings | Total No. of Holdings Sampled | Positive Holdings | | | | | | |
| | | Total | H5 | H7 | | | Total | H5 | H7 | | | Total | H5 | H7 | | | Total | H5 | H7 | | | | | |
| AT | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | | | | | |
| BE | - | - | - | - | - | NK | 72 | 3 | 2 | 1 | 229 | 208 | 0 | 0 | 0 | 225 | 204 | 0 | 0 | 0 | | | | |
| BG | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 16 | 115 | 0 | 0 | 0 | | | | |
| CY | - | - | - | - | - | 21 | 1 | 0 | 0 | 0 | 19 | 17 | 0 | 0 | 0 | 19 | 22 | 0 | 0 | 0 | | | | |
| CZ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | | | | |
| DE | - | - | - | - | - | - | - | - | - | - | NK | 5 | 0 | 0 | 0 | 44840 | 8 | 0 | 0 | 0 | | | | |
| DK | 70 | 48 | 0 | 0 | 0 | 70 | 44 | 0 | 0 | 0 | 151 | 142 | 0 | 0 | 0 | 480 | 490 | 0 | 0 | 0 | | | | |
| EE | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 | 1 | 0 | 0 | 0 | | | | |
| EL | 125 | 11 | 0 | 0 | 0 | - | - | - | - | - | NK | 6 | 0 | 0 | 0 | 106 | 35 | 0 | 0 | 0 | | | | |
| ES | 527 | 120 | 0 | 0 | 0 | 476 | 201 | 0 | 0 | 0 | 483 | 268 | 0 | 0 | 0 | 513 | 169 | 0 | 0 | 0 | | | | |
| FI | 52 | 52 | 0 | 0 | 0 | 65 | 65 | 0 | 0 | 0 | 66 | 66 | 0 | 0 | 0 | 38 | 30 | 0 | 0 | 0 | | | | |
| FR | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | | | | |
| HU | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 121 | 39 | 0 | 0 | 0 | | | | |
| IE | 93 | 66 | 0 | 0 | 0 | 92 | 62 | 0 | 0 | 0 | 92 | 77 | 0 | 0 | 0 | 80 | 91 | 0 | 0 | 0 | | | | |
| IT | 288 | 254 | 0 | 0 | 0 | 270 | 224 | 0 | 0 | 0 | 251 | 244 | 0 | 0 | 0 | 399 | 693 | 0 | 0 | 0 | | | | |
| LT | 19 | 11 | 0 | 0 | 0 | 11 | 6 | 0 | 0 | 0 | NK | 2 | 0 | 0 | 0 | 3 | 4 | 0 | 0 | 0 | | | | |
| LU | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | | | | |
| LV | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 | 1 | 0 | 0 | 0 | | | | |
| MT | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | | | | |
| NL | 665 | 1391 | 0 | 0 | 0 | 411 | 1609 | 0 | 0 | 0 | 304 | 919 | 1 | 0 | 1 | 455 | 468 | 0 | 0 | 0 | | | | |
| PL | 252 | 103 | 0 | 0 | 0 | 54 | 54 | 0 | 0 | 0 | 43 | 29 | 0 | 0 | 0 | 127 | 107 | 0 | 0 | 0 | | | | |
| PT | 33 | 33 | 0 | 0 | 0 | 33 | 33 | 0 | 0 | 0 | 18 | 18 | 0 | 0 | 0 | 43 | 54 | 0 | 0 | 0 | | | | |
| RO | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 6 | 11 | 0 | 0 | 0 | | | | |
| SE | 150 | 40 | 0 | 0 | 0 | 47 | 40 | 0 | 0 | 0 | 40 | 40 | 0 | 0 | 0 | 53 | 40 | 0 | 0 | 0 | | | | |
| SI | 16 | 16 | 0 | 0 | 0 | 16 | 16 | 0 | 0 | 0 | 12 | 12 | 0 | 0 | 0 | 11 | 11 | 0 | 0 | 0 | | | | |
| SK | - | - | - | - | - | 12 | 5 | 0 | 0 | 0 | 50 | 20 | 0 | 0 | 0 | 50 | 13 | 0 | 0 | 0 | | | | |
| UK | - | 1 | 0 | 0 | 0 | 509 | 57 | 0 | 0 | 0 | 992 | 57 | 0 | 0 | 0 | 376 | 40 | 0 | 0 | 0 | | | | |
| Total | 2290 | 2146 | 0 | 0 | 0 | 2087 | 2489 | 3 | 2 | 1 | 2750 | 2130 | 1 | 0 | 1 | 47962 | 2646 | 0 | 0 | 0 | | | | |
| | Overall Apparent Prevalence H5/H7 (Upper 95% confidence limit for overall H5/H7 prevalence) | | 0% (0.04%) | | | Overall Apparent Prevalence H5/H7 (Upper 95% confidence limit for overall H5/H7 prevalence) | | 0.12% (0.37%) | | | Overall Apparent Prevalence H5/H7 (Upper 95% confidence limit for overall H5/H7 prevalence) | | 0.047% (0.15%) | | | Overall Apparent Prevalence H5/H7 (Upper 95% confidence limit for overall H5/H7 prevalence) | | 0% (0.11%) | | | | | | |

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| Member State | 2004 | | | | | | 2005 | | | | | | 2006 | | | | | | 2007 | | | | | | | | | | | |
|--------------|---|------|-------------------------------|---|-------------------|---|-----------------------|--------------|-------------------------------|---|---|------|-----------------------|---|-------------------------------|---|-------------|----|---------------|------------------------|------|---|-------|----|----|-------|----|---------------|--|--|
| | Total No. of Holdings | | Total No. of Holdings Sampled | | Positive Holdings | | Total No. of Holdings | | Total No. of Holdings Sampled | | Positive Holdings | | Total No. of Holdings | | Total No. of Holdings Sampled | | Laying hens | | | Free-range laying hens | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | Total | H5 | H7 | Total | H5 | H7 | Total | H5 | H7 | Total | H5 | H7 | | |
| AT | 3500 | 60 | 0 | 0 | 0 | 1600 | 60 | 0 | 0 | 0 | 1600 | 60 | 0 | 0 | 0 | 1596 | 60 | 0 | 0 | 0 | | | | | | | | | | |
| BE | - | - | - | - | - | - | 204 | 1 | 1 | 0 | 474 | 405 | 2 | 2 | 0 | 381 | 303 | 1 | 0 | 1 | 97 | 84 | 1 | 0 | 1 | | | | | |
| BG | | | | | | | | | | | | | | | | 242 | 1348 | 0 | 0 | 0 | | | | | | | | | | |
| CY | 29 | 10 | 0 | 0 | 0 | 30 | 30 | 0 | 0 | 0 | 30 | 30 | 0 | 0 | 0 | 30 | 41 | 0 | 0 | 0 | | | | | | | | | | |
| CZ | 171 | 53 | 0 | 0 | 0 | 182 | 53 | 0 | 0 | 0 | 92 | 51 | 0 | 0 | 0 | 92 | 48 | 0 | 0 | 0 | | | | | | | | | | |
| DE | 120794 | 301 | 0 | 0 | 0 | 87091 | 90 | 0 | 0 | 0 | NK | 251 | 16 | 0 | 0 | NK | 126 | 0 | 0 | 0 | NK | 27 | 1 | 0 | 0 | | | | | |
| DK | 120 | 55 | 0 | 0 | 0 | - | 186 | 0 | 0 | 0 | 143 | 133 | 3 | 1 | 1 | 57 | 86 | 0 | 0 | 0 | 127 | 341 | 1 | 0 | 1 | | | | | |
| EE | - | - | - | - | - | 13 | 13 | 0 | 0 | 0 | 13 | 13 | 0 | 0 | 0 | 3487 | 21 | 5 | 0 | 0 | | | | | | | | | | |
| EL | 233 | 31 | 2 | 0 | 0 | 177 | 11 | 0 | 0 | 0 | NK | 70 | 0 | 0 | 0 | 372 | 63 | 0 | 0 | 0 | | | | | | | | | | |
| ES | 1792 | 250 | 0 | 0 | 0 | 1336 | 519 | 0 | 0 | 0 | 1315 | 861 | 10 | 1 | 0 | 975 | 458 | 5 | 1 | 0 | 90 | 11 | 0 | 0 | 0 | | | | | |
| FI | 857 | 105 | 0 | 0 | 0 | 1585 | 62 | 0 | 0 | 0 | 953 | 55 | 0 | 0 | 0 | 938 | 16 | 0 | 0 | 0 | 29 | 8 | 0 | 0 | 0 | | | | | |
| FR | 1288 | 161 | 0 | 0 | 0 | 1040 | 113 | 0 | 0 | 0 | 702 | 70 | 0 | 0 | 0 | | | | | | 1716 | 60 | 0 | 0 | 0 | | | | | |
| HU | - | - | - | 0 | 0 | 1532 | 95 | 0 | 0 | 0 | 749 | 67 | 0 | 0 | 0 | 504 | 186 | 0 | 0 | 0 | 6 | 6 | 0 | 0 | 0 | | | | | |
| IE | 185 | 145 | 0 | 0 | 0 | 183 | 148 | 0 | 0 | 0 | 183 | 141 | 0 | 0 | 0 | 87 | 59 | 0 | 0 | 0 | 99 | 65 | 1 | 0 | 0 | | | | | |
| IT | 1477 | 939 | 0 | 0 | 0 | 1360 | 1101 | 0 | 0 | 0 | 1288 | 1100 | 0 | 0 | 0 | 1406 | 2567 | 5 | 0 | 5 | 182 | 307 | 0 | 0 | 0 | | | | | |
| LT | 19 | 15 | 0 | 0 | 0 | 22 | 11 | 0 | 0 | 0 | NK | 12 | 0 | 0 | 0 | 8 | 28 | 0 | 0 | 0 | | | | | | | | | | |
| LU | 11 | 11 | 0 | 0 | 0 | 11 | 11 | 0 | 0 | 0 | 14 | 14 | 0 | 0 | 0 | 16 | 20 | 0 | 0 | 0 | | | | | | | | | | |
| LV | 26 | 26 | 0 | 0 | 0 | 27 | 27 | 0 | 0 | 0 | 26 | 26 | 0 | 0 | 0 | 25 | 24 | 0 | 0 | 0 | | | | | | | | | | |
| MT | 40 | 38 | 14 | 0 | 0 | 305 | 63 | 0 | 0 | 0 | 83 | 71 | 0 | 0 | 0 | 305 | 30 | 0 | 0 | 0 | | | | | | | | | | |
| NL | 1400 | 2660 | 1 | 0 | 1 | 910 | 1167 | 0 | 0 | 0 | 1405 | 4696 | 0 | 0 | 0 | 1372 | 1341 | 0 | 0 | 0 | 205 | 239 | 0 | 0 | 0 | | | | | |
| PL | 376 | 128 | 0 | 0 | 0 | 96 | 85 | 0 | 0 | 0 | 130 | 102 | 0 | 0 | 0 | 230 | 151 | 0 | 0 | 0 | | | | | | | | | | |
| PT | 268 | 211 | 0 | 0 | 0 | 268 | 211 | 0 | 0 | 0 | 205 | 78 | 0 | 0 | 0 | 143 | 95 | 0 | 0 | 0 | | | | | | | | | | |
| RO | | | | | | | | | | | | | | | | 872 | 936 | 0 | 0 | 0 | 166 | 157 | 0 | 0 | 0 | | | | | |
| SE | 300 | 60 | 0 | 0 | 0 | 423 | 60 | 0 | 0 | 0 | 351 | 60 | 0 | 0 | 0 | 349 | 42 | 0 | 0 | 0 | 86 | 18 | 0 | 0 | 0 | | | | | |
| SI | 145 | 57 | 0 | 0 | 0 | 139 | 66 | 0 | 0 | 0 | 137 | 61 | 0 | 0 | 0 | 122 | 54 | 0 | 0 | 0 | | | | | | | | | | |
| SK | 159 | 124 | 0 | 0 | 0 | 41 | 18 | 0 | 0 | 0 | 41 | 30 | 0 | 0 | 0 | 50 | 65 | 0 | 0 | 0 | | | | | | | | | | |
| UK | 22014 | 54 | 0 | 0 | 0 | 1290 | 90 | 0 | 0 | 0 | 1256 | 80 | 0 | 0 | 0 | 985 | 52 | 0 | 0 | 0 | 246 | 11 | 0 | 0 | 0 | | | | | |
| Total | 155204 | 5494 | 17 | 0 | 1 | 99661 | 4494 | 1 | 1 | 0 | 11190 | 8537 | 31 | 4 | 1 | 14644 | 8220 | 16 | 1 | 6 | 3049 | 1334 | 4 | 0 | 2 | | | | | |
| | Overall Apparent Prevalence H5/H7 (Upper 95% confidence limit for overall H5/H7 prevalence) | | 0.02% (0.09%) | | | Overall Apparent Prevalence H5/H7 (Upper 95% confidence limit for overall H5/H7 prevalence) | | 0.02% (0.1%) | | | Overall Apparent Prevalence H5/H7 (Upper 95% confidence limit for overall H5/H7 prevalence) | | 0.06% (0.09%) | | | Overall Apparent Prevalence H5/H7 (Upper 95% confidence limit for overall H5/H7 prevalence) | | | 0.09% (0.14%) | | | Overall Apparent Prevalence H5/H7 (Upper 95% confidence limit for overall H5/H7 prevalence) | | | | | | 0.15% (0.39%) | | |

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| Member State | Table 4 Total number of Fattening Turkey holdings, total number sampled, and total number of positive holdings reported for 2004, 2005, 2006 and 2007 by Member State | | | | | | | | | | | | | | | | | | | | | | | |
|--------------|---|-------------------------------|-------------------|----|----|---|-------------------------------|-------------------|----|---|---|-------------------------------|-------------------|----|---|---|-------------------------------|-------------------|------|---|--|--|--|--|
| | 2004 | | | | | | 2005 | | | | | | 2006 | | | | | | 2007 | | | | | |
| | Total No. of Holdings | Total No. of Holdings Sampled | Positive Holdings | | | Total No. of Holdings | Total No. of Holdings Sampled | Positive Holdings | | | Total No. of Holdings | Total No. of Holdings Sampled | Positive Holdings | | | Total No. of Holdings | Total No. of Holdings Sampled | Positive Holdings | | | | | | |
| | | Total | H5 | H7 | | | Total | H5 | H7 | | | Total | H5 | H7 | | | Total | H5 | H7 | | | | | |
| AT | 130 | 80 | 0 | 0 | 0 | 120 | 80 | 0 | 0 | 0 | 120 | 80 | 0 | 0 | 0 | 111 | 75 | 0 | 0 | 0 | | | | |
| BE | 58 | 34 | 0 | 0 | 0 | 37 | | 0 | 0 | 0 | 46 | 37 | 0 | 0 | 0 | 39 | 45 | 0 | 0 | 0 | | | | |
| BG | | | | | | | | | | | | | | | | 1 | 1 | 0 | 0 | 0 | | | | |
| CY | 9 | 6 | 0 | 0 | 0 | 8 | 5 | 0 | 0 | 0 | 8 | 7 | 0 | 0 | 0 | 8 | 5 | 0 | 0 | 0 | | | | |
| CZ | 12 | 12 | 0 | 0 | 0 | - | - | - | - | - | 75 | 7 | 0 | 0 | 0 | 71 | 57 | 1 | 1 | 0 | | | | |
| DE | 2771 | 167 | 0 | 0 | 0 | 2769 | 110 | 0 | 0 | 0 | NK | 188 | 1 | 0 | 0 | NK | 91 | 0 | 0 | 0 | | | | |
| DK | 39 | 32 | 0 | 0 | 0 | 40 | 30 | 0 | 0 | 0 | 40 | 17 | 0 | 0 | 0 | 120 | 66 | 0 | 0 | 0 | | | | |
| EE | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 165 | 0 | 0 | 0 | 0 | | | | |
| EL | 12 | 12 | 1 | 0 | 0 | 35 | 34 | 0 | 0 | 0 | NK | 26 | 0 | 0 | 0 | 47 | 27 | 0 | 0 | 0 | | | | |
| ES | 313 | 127 | 0 | 0 | 0 | 513 | 142 | 0 | 0 | 0 | 522 | 456 | 0 | 0 | 0 | 784 | 180 | 0 | 0 | 0 | | | | |
| FI | 68 | 60 | 0 | 0 | 0 | - | - | - | - | - | 176 | 53 | 0 | 0 | 0 | 65 | 25 | 0 | 0 | 0 | | | | |
| FR | 3340 | 242 | 11 | 1 | 0 | 2654 | 224 | 3 | 0 | 0 | 1400 | 157 | 4 | 1 | 0 | 1604 | 144 | 0 | 0 | 0 | | | | |
| HU | - | - | - | 0 | 0 | 407 | 133 | 0 | 0 | 0 | 407 | 91 | 0 | 0 | 0 | 369 | 130 | 0 | 0 | 0 | | | | |
| IE | 103 | 89 | 0 | 0 | 0 | 107 | 80 | 0 | 0 | 0 | 107 | 77 | 0 | 0 | 0 | 111 | 47 | 0 | 0 | 0 | | | | |
| IT | 1076 | 909 | 27 | 0 | 27 | 560 | 467 | 0 | 0 | 0 | 457 | 408 | 0 | 0 | 0 | 967 | 2127 | 6 | 0 | 6 | | | | |
| LT | 6 | 6 | 0 | 0 | 0 | 4 | 1 | 0 | 0 | 0 | NK | 2 | 0 | 0 | 0 | | | | | | | | | |
| LU | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | | | | | | | | | |
| LV | 3 | 3 | 0 | 0 | 0 | 2 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | | | | |
| MT | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | | | | | | | | | |
| NL | 115 | 156 | 0 | 0 | 0 | 81 | 227 | 0 | 0 | 0 | - | - | - | - | - | 56 | 127 | 0 | 0 | 0 | | | | |
| PL | - | 111 | 0 | 0 | 0 | 316 | 102 | 0 | 0 | 0 | 136 | 93 | 0 | 0 | 0 | 201 | 169 | 0 | 0 | 0 | | | | |
| PT | 187 | 112 | 0 | 0 | 0 | 187 | 112 | 0 | 0 | 0 | 210 | 95 | 0 | 0 | 0 | 206 | 103 | 0 | 0 | 0 | | | | |
| RO | | | | | | | | | | | | | | | | 218 | 185 | 0 | 0 | 0 | | | | |
| SE | 20 | 26 | 0 | 0 | 0 | 40 | 35 | 0 | 0 | 0 | 26 | 26 | 0 | 0 | 0 | 29 | 23 | 0 | 0 | 0 | | | | |
| SI | 70 | 61 | 0 | 0 | 0 | 74 | 72 | 0 | 0 | 0 | 68 | 53 | 0 | 0 | 0 | 57 | 45 | 0 | 0 | 0 | | | | |
| SK | 17 | 10 | 0 | 0 | 0 | 15 | 5 | 0 | 0 | 0 | 15 | 12 | 0 | 0 | 0 | 11 | 13 | 0 | 0 | 0 | | | | |
| UK | 1818 | 84 | 0 | 0 | 0 | - | 161 | 0 | 0 | 0 | 575 | 95 | 0 | 0 | 0 | 610 | 79 | 0 | 0 | 0 | | | | |
| Total | 10167 | 2339 | 39 | 1 | 27 | 7932 | 2058 | 3 | 0 | 0 | 4389 | 1981 | 5 | 1 | 0 | 5851 | 3765 | 7 | 1 | 6 | | | | |
| | Overall Apparent Prevalence H5/H7 (Upper 95% confidence limit for overall H5/H7 prevalence) | | 1.2% (1.58%) | | | Overall Apparent Prevalence H5/H7 (Upper 95% confidence limit for overall H5/H7 prevalence) | | 0% (0.13%) | | | Overall Apparent Prevalence H5/H7 (Upper 95% confidence limit for overall H5/H7 prevalence) | | 0.05% (0.21%) | | | Overall Apparent Prevalence H5/H7 (Upper 95% confidence limit for overall H5/H7 prevalence) | | 0.2% (0.27%) | | | | | | |

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| Member State | Table 5 Total number of Breeder Turkey holdings, total number sampled, and total number of positive holdings reported for 2004, 2005, 2006 and 2007 by Member State | | | | | | | | | | | | | | | | | | | | | | | |
|--------------|---|-------------------------------|-------------------|----|---|---|-------------------------------|-------------------|----|---|---|-------------------------------|-------------------|----|----|---|-------------------------------|-------------------|------|---|--|--|--|--|
| | 2004 | | | | | | 2005 | | | | | | 2006 | | | | | | 2007 | | | | | |
| | Total No. of Holdings | Total No. of Holdings Sampled | Positive Holdings | | | Total No. of Holdings | Total No. of Holdings Sampled | Positive Holdings | | | Total No. of Holdings | Total No. of Holdings Sampled | Positive Holdings | | | Total No. of Holdings | Total No. of Holdings Sampled | Positive Holdings | | | | | | |
| | | Total | H5 | H7 | | | Total | H5 | H7 | | | Total | H5 | H7 | | | Total | H5 | H7 | | | | | |
| AT | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | | | | | |
| BE | - | - | - | - | - | - | 2 | 0 | 0 | 0 | - | - | - | - | 3 | 3 | 0 | 0 | 0 | | | | | |
| BG | - | - | - | - | - | - | - | - | - | - | - | - | - | 10 | 45 | 0 | 0 | 0 | | | | | | |
| CY | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | | | | | |
| CZ | - | - | - | - | - | 4 | 4 | 0 | 0 | 0 | 3 | 3 | 0 | 0 | 0 | - | - | - | - | | | | | |
| DE | - | - | - | - | - | - | - | - | - | - | NK | 2 | 0 | 0 | 0 | NK | 23 | 0 | 0 | 0 | | | | |
| DK | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | | | | | |
| EE | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | | | | | |
| EL | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | | | | | |
| ES | 9 | 8 | 0 | 0 | 0 | 9 | 8 | 0 | 0 | 0 | 12 | 4 | 0 | 0 | 0 | 99 | 15 | 0 | 0 | 0 | | | | |
| FI | - | - | - | - | - | 163 | 75 | 0 | 0 | 0 | - | - | - | - | - | 8 | 9 | 0 | 0 | 0 | | | | |
| FR | 426 | 82 | 3 | 0 | 0 | 317 | 57 | 0 | 0 | 0 | 311 | 53 | 8 | 0 | 0 | 311 | 73 | 0 | 0 | 0 | | | | |
| HU | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 8 | 8 | 0 | 0 | 0 | | | | |
| IE | 20 | 20 | 0 | 0 | 0 | 13 | 12 | 0 | 0 | 0 | 13 | 9 | 0 | 0 | 0 | 8 | 2 | 0 | 0 | 0 | | | | |
| IT | 62 | 55 | 0 | 0 | 0 | 65 | 47 | 0 | 0 | 0 | 57 | 56 | 0 | 0 | 0 | 64 | 128 | 0 | 0 | 0 | | | | |
| LT | - | - | - | - | - | 2 | 1 | 0 | 0 | 0 | - | - | - | - | - | 3 | 13 | 0 | 0 | 0 | | | | |
| LU | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | | | | |
| LV | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | | | | |
| MT | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | | | | |
| NL | 6 | 6 | 0 | 0 | 0 | 3 | 14 | 0 | 0 | 0 | 3 | 4 | 0 | 0 | 0 | 2 | 6 | 0 | 0 | 0 | | | | |
| PL | - | 3 | 0 | 0 | 0 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | | | | |
| PT | 4 | 4 | 0 | 0 | 0 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | | | | |
| RO | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 69 | 68 | 0 | 0 | 0 | | | | | |
| SE | - | - | - | - | - | 4 | 4 | 0 | 0 | 0 | 4 | 4 | 0 | 0 | 0 | 4 | 4 | 0 | 0 | 0 | | | | |
| SI | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | | | | |
| SK | 6 | 3 | 0 | 0 | 0 | - | - | - | - | - | 4 | 4 | 0 | 0 | 0 | 4 | 3 | 0 | 0 | 0 | | | | |
| UK | - | 7 | 0 | 0 | 0 | - | 27 | 0 | 0 | 0 | 141 | 11 | 0 | 0 | 0 | 31 | 8 | 0 | 0 | 0 | | | | |
| Total | 533 | 188 | 3 | 0 | 0 | 580 | 251 | 0 | 0 | 0 | 548 | 150 | 8 | 0 | 0 | 625 | 409 | 0 | 0 | 0 | | | | |
| | Overall Apparent Prevalence H5/H7 (Upper 95% confidence limit for overall H5/H7 prevalence) | | 0% (1.31%) | | | Overall Apparent Prevalence H5/H7 (Upper 95% confidence limit for overall H5/H7 prevalence) | | 0% (1.03%) | | | Overall Apparent Prevalence H5/H7 (Upper 95% confidence limit for overall H5/H7 prevalence) | | 0% (1.82%) | | | Overall Apparent Prevalence H5/H7 (Upper 95% confidence limit for overall H5/H7 prevalence) | | 0% (0.48%) | | | | | | |

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Table 6 Total number of Backyard Flock holdings, total number sampled, and total number of positive holdings reported for 2004, 2005, 2006 and 2007 by Member State
 *Virological data/results in italics in parentheses

| Member State | 2004 | | | 2005 | | | 2006 | | | 2007 | | | | | | | | | | | | |
|--------------|---|-------------------------------|-------------------|-------|-------|---|-------------------------------|-------------------|----|------|---|-------------------------------|-------------------|---------------|-------|---------|---|----|---|---------------|--|--|
| | Total No. of Holdings | Total No. of Holdings Sampled | Positive Holdings | | | Total No. of Holdings | Total No. of Holdings Sampled | Positive Holdings | | | Total No. of Holdings | Total No. of Holdings Sampled | Positive Holdings | | | | | | | | | |
| | | | Total | H5 | H7 | | | Total | H5 | H7 | | | Total | H5 | H7 | | | | | | | |
| AT | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | | | | |
| BE | - | - | - | - | - | - | - | - | - | 24 | 9 | 0 | 0 | 0 | 45 | 24 | 1 | 1 | 0 | | | |
| BG | - | - | - | - | - | - | - | - | - | - | - | - | - | 694880 | 8667 | 0 | 0 | 0 | | | | |
| CY | - | - | - | - | - | 9034 | 13 | 0 | 0 | 0 | 8530 | 93 | 0 | 0 | 0 | 8530 | 30 | 0 | 0 | 0 | | |
| CZ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | | | |
| DE | 16 | 10 (12) | 0 (0) | 0 (0) | 0 (0) | - | - | - | - | - | NK | 78 | 10 | 0 | 0 | NK | 220 | 8 | 0 | 0 | | |
| DK | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | | | |
| EE | - | - | - | - | - | - | - | - | - | - | - | - | - | 2113 | 0 | 0 | 0 | 0 | 0 | | | |
| EL | - | - | - | - | - | - | - | - | - | - | - | - | - | 147743 | 25 | 0 | 0 | 0 | 0 | | | |
| ES | - | - | - | - | - | 4371 | 217 | 0 | 0 | 0 | 19132 | 3514 | 2 | 2 | 0 | 25011 | 3480 | 24 | 0 | 0 | | |
| FI | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 | 1 | 0 | 0 | 0 | 0 | | | |
| FR | - | - | - | - | - | - | - | - | - | - | - | - | - | 10989 | 113 | 0 | 0 | 0 | 0 | | | |
| HU | - | - | - | - | - | - | - | - | - | - | NK | 2294 | 0 | 0 | 0 | NK | 1897 | 0 | 0 | 0 | | |
| IE | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | | | |
| IT | - | - | - | - | - | - | - | - | - | - | - | - | - | 140672 | 1903 | 5 | 1 | 4 | | | | |
| LT | - | - | - | - | - | 174213 | 17 | 0 | 0 | 0 | NK | 65 | 0 | 0 | 0 | - | - | - | - | | | |
| LU | - | - | - | - | - | - | - | - | - | - | - | - | - | 750 | 14 | 0 | 0 | 0 | | | | |
| LV | - | - | - | - | - | - | - | - | - | - | NK | 91 | 0 | 0 | 0 | NK | 81 | 0 | 0 | 0 | | |
| MT | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | | | |
| NL | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | | | |
| PL | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | | | |
| PT | - | - | - | - | - | - | - | - | - | - | 236296 | 2726 | 0 | 0 | 0 | 236296 | 200 | 0 | 0 | 0 | | |
| RO | - | - | - | - | - | - | - | - | - | - | - | - | - | 2015011 | 83244 | 1 | 1 | 0 | | | | |
| SE | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | | | |
| SI | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | | | |
| SK | - | - | - | - | - | - | - | - | - | - | 54509 | 181 | 0 | 0 | 0 | 2 | 2 | 0 | 0 | 0 | | |
| UK | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | | | |
| Total | 16 | 10 (12) | 0 | 0 | 0 | 178584 | 247 | 0 | 0 | 0 | 318491 | 9051 | 12 | 2 | 0 | 3282043 | 99901 | 39 | 3 | 4 | | |
| | Overall Apparent Prevalence H5/H7 (Upper 95% confidence limit for overall H5/H7 prevalence) | | 0% (18.8%) | | | Overall Apparent Prevalence H5/H7 (Upper 95% confidence limit for overall H5/H7 prevalence) | | 0% (1.2%) | | | Overall Apparent Prevalence H5/H7 (Upper 95% confidence limit for overall H5/H7 prevalence) | | | 0.02% (0.07%) | | | Overall Apparent Prevalence H5/H7 (Upper 95% confidence limit for overall H5/H7 prevalence) | | | 0.01% (0.01%) | | |

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| Member State | 2004 | | | | | 2005 | | | | | 2006 | | | | | 2007 | | | | | |
|--------------|---|-------------------------------|-------------------|----|----|---|-------------------------------|-------------------|----|----|---|-------------------------------|-------------------|--------------|----|-----------------------|---|-------------------|--------------|------|--|
| | Total No. of Holdings | Total No. of Holdings Sampled | Positive Holdings | | | Total No. of Holdings | Total No. of Holdings Sampled | Positive Holdings | | | Total No. of Holdings | Total No. of Holdings Sampled | Positive Holdings | | | Total No. of Holdings | Total No. of Holdings Sampled | Positive Holdings | | | |
| | | | Total | H5 | H7 | | | Total | H5 | H7 | | | Total | H5 | H7 | | | Total | H5 | H7 | |
| AT | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | | |
| BE | - | - | - | - | - | NK | 12 | 0 | 0 | 0 | 27 | 21 | 0 | 0 | 0 | 25 | 16 | 0 | 0 | 0 | |
| BG | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 17 | 113 | 0 | 0 | 0 | |
| CY | 3 | 3 | 0 | 0 | 0 | 6 | 2 | 0 | 0 | 0 | 7 | 5 | 0 | 0 | 0 | 7 | 5 | 0 | 0 | 0 | |
| CZ | - | - | - | - | - | - | - | - | - | - | 37 | 33 | 0 | 0 | 0 | 12 | 12 | 2 | 0 | 0 | |
| DE | 16 | 16 | 0 | 0 | 0 | - | - | - | - | - | NK | 10 | 1 | 0 | 0 | NK | 9 | 0 | 0 | 0 | |
| DK | - | - | - | - | - | - | - | - | - | - | 175 | 298 | 12 | 2(3) | 2 | 262 | 265 | 2(2) | 0 | 0 | |
| EE | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 87 | 1 | 0 | 0 | 0 | | |
| EL | 4 | 3 | 0 | 0 | 0 | 4 | 2 | 0 | 0 | 0 | NK | 22 | 0 | 0 | 0 | 15 | 14 | 0 | 0 | 0 | |
| ES | 398 | 130 | 0 | 0 | 0 | 567 | 198 | 0 | 0 | 0 | 542 | 381 | 0 | 0 | 0 | 488 | 134 | 1 | 0 | 0 | |
| FI | 34 | 24 | 0 | 0 | 0 | 41 | 19 | 0 | 0 | 0 | NK | 11 | 0 | 0 | 0 | 15 | 11 | 0 | 0 | 0 | |
| FR | - | - | - | - | - | 482 | 65 | 0 | 0 | 0 | NK | 220 | 4 | 4 | 0 | 10989 | 124 | 1 | 1 | 0 | |
| HU | - | - | - | - | - | 79 | 31 | 0 | 0 | 0 | 119 | 53 | 0 | 0 | 0 | 43 | 40 | 0 | 0 | 0 | |
| IE | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1 | 1 | 1 | 0 | 0 | | |
| IT | - | - | - | - | - | 506 | 334 | 0 | 0 | 0 | 422 | 325 | 1 | 1 | 0 | 729 | 911 | 1(7) | 0 | 1(7) | |
| LT | - | - | - | - | - | - | - | - | - | - | NK | 11 | 0 | 0 | 0 | - | - | - | - | - | |
| LU | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| LV | 11 | 11 | 0 | 0 | 0 | 9 | 7 | 0 | 0 | 0 | 9 | 9 | 0 | 0 | 0 | - | - | - | - | - | |
| MT | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| NL | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| PL | - | - | - | - | - | - | - | - | - | - | 14 | 14 | 0 | 0 | 0 | 18 | 18 | 0 | 0 | 0 | |
| PT | 24 | 24 | 0 | 0 | 0 | 24 | 24 | 0 | 0 | 0 | 23 | 23 | 0 | - | - | 309 | 87 | 3(3) | 3(3) | 0 | |
| RO | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 55 | 58 | 0 | 0 | 0 | 0 | |
| SE | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 30 | 30 | 3 | 3 | 3 | 3 | |
| SI | 4 | 4 | 0 | 0 | 0 | 9 | 9 | 0 | 0 | 0 | 10 | 9 | 0 | 0 | 0 | 9 | 9 | 0 | 0 | 0 | |
| SK | 27 | 43 | 0 | 0 | 0 | 49 | 49 | 0 | 0 | 0 | 31 | 24 | 0 | 0 | 0 | 35 | 44 | 0 | 0 | 0 | |
| UK | 17 | 7 | 0 | 0 | 0 | 35 | 4 | 0 | 0 | 0 | 112 | 31 | 0 | 0 | 0 | 86 | 25 | 1 | 1 | 0 | |
| Total | 538 | 265 | 0 | 0 | 0 | 1811 | 756 | 0 | 0 | 0 | 1528 | 1500 | 18 | 7(3) | 2 | 13232 | 1927 | 15(7) | 8(3) | 4(7) | |
| | Overall Apparent Prevalence H5/H7 (Upper 95% confidence limit for overall H5/H7 prevalence) | | 0% (0.93%) | | | Overall Apparent Prevalence H5/H7 (Upper 95% confidence limit for overall H5/H7 prevalence) | | 0% (0.33%) | | | Overall Apparent Prevalence H5/H7 (Upper 95% confidence limit for overall H5/H7 prevalence) | | | 0.8% (0.92%) | | | Overall Apparent Prevalence H5/H7 (Upper 95% confidence limit for overall H5/H7 prevalence) | | 0.5% (0.79%) | | |

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Table 9 Total number of Ratite holdings, total number sampled, and total number of positive holdings reported for 2004, 2005, 2006 and 2007 by Member State

| Member State | 2004 | | | 2005 | | | 2006 | | | 2007 | | | | | | | | | | |
|--------------|---|-------------------------------|-------------------|------|----|---|-------------------------------|-------------------|----|------|---|-------------------------------|-------------------|----|----|---|-----|------------|---|---|
| | Total No. of Holdings | Total No. of Holdings Sampled | Positive Holdings | | | Total No. of Holdings | Total No. of Holdings Sampled | Positive Holdings | | | Total No. of Holdings | Total No. of Holdings Sampled | Positive Holdings | | | | | | | |
| | | | Total | H5 | H7 | | | Total | H5 | H7 | | | Total | H5 | H7 | | | | | |
| AT | - | - | - | - | - | 5 | 5 | 0 | 0 | 0 | 21 | 21 | 0 | 0 | 0 | 5 | 5 | 0 | 0 | 0 |
| BE | 56 | 19 | 0 | 0 | 0 | NK | 4 | 0 | 0 | 0 | 53 | 36 | 0 | 0 | 0 | 33 | 19 | 0 | 0 | 0 |
| BG | | | | | | | | | | | | | | | | NK | 1 | 0 | 0 | 0 |
| CY | 3 | 2 | 0 | 0 | 0 | 8 | 3 | 0 | 0 | 0 | 9 | 9 | 0 | 0 | 0 | 20 | 8 | 0 | 0 | 0 |
| CZ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| DE | - | 4 | 0 | 0 | - | - | 9 | 1 | 1 | 0 | NK | 47 | 0 | 0 | 0 | 578 | 13 | 0 | 0 | 0 |
| DK | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 0 | 0 | 0 |
| EE | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 32 | 0 | 0 | 0 | 0 |
| EL | 23 | 1 | 0 | 0 | 0 | 5 | 3 | 0 | 0 | 0 | NK | 18 | 0 | 0 | 0 | 28 | 4 | 0 | 0 | 0 |
| ES | 439 | 95 | 2 | 1 | 1 | 297 | 71 | 0 | 0 | 0 | 313 | 89 | 2 | 2 | 0 | 200 | 31 | 0 | 0 | 0 |
| FI | 13 | 10 | 0 | 0 | 0 | 22 | 2 | 0 | 0 | 0 | NK | 2 | 0 | 0 | 0 | 6 | 7 | 0 | 0 | 0 |
| FR | 30 | 23 | 0 | 0 | - | - | - | - | - | - | NK | 4 | 0 | 0 | 0 | - | - | - | - | - |
| HU | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 12 | 10 | 0 | 0 | 0 |
| IE | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| IT | 566 | 349 | 1 | 1 | 0 | 256 | 68 | 0 | 0 | 0 | 183 | 98 | 0 | 0 | 0 | 187 | 128 | 0 | 0 | 0 |
| LT | 3 | 1 | 0 | 0 | 0 | 7 | 1 | 0 | 0 | 0 | - | - | - | - | - | - | - | - | - | - |
| LU | 1 | 1 | - | - | - | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 4 | 0 | 0 | 0 |
| LV | 3 | 3 | 0 | 0 | 0 | 3 | 2 | 0 | 0 | 0 | 3 | 3 | 0 | 0 | 0 | 2 | 2 | 0 | 0 | 0 |
| MT | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| NL | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| PL | 19 | 19 | 0 | 0 | 0 | 25 | 19 | 0 | 0 | 0 | 33 | 15 | 0 | 0 | 0 | 33 | 28 | 0 | 0 | 0 |
| PT | 99 | 94 | 0 | 0 | 0 | 99 | 94 | 0 | 0 | 0 | 56 | 40 | 0 | 0 | 0 | 55 | 4 | 0 | 0 | 0 |
| RO | | | | | | | | | | | | | | | | | | | | |
| SE | 100 | 11 | 0 | 0 | 0 | 100 | 7 | 0 | 0 | 0 | 15 | 15 | 0 | 0 | 0 | 18 | 10 | 0 | 0 | 0 |
| SI | 6 | 4 | 0 | 0 | 0 | 41 | 24 | 0 | 0 | 0 | 40 | 15 | 0 | 0 | 0 | 22 | 18 | 0 | 0 | 0 |
| SK | 18 | 18 | 0 | 0 | 0 | 43 | 28 | 0 | 0 | 0 | 28 | 23 | 0 | 0 | 0 | 17 | 24 | 0 | 0 | 0 |
| UK | 16 | 8 | 0 | 0 | 0 | 36 | 11 | 0 | 0 | 0 | 153 | 12 | 0 | 0 | 0 | 38 | 9 | 0 | 0 | 0 |
| Total | 1395 | 662 | 3 | 2 | 1 | 948 | 352 | 1 | 1 | 0 | 908 | 448 | 2 | 2 | 0 | 1287 | 325 | 0 | 0 | 0 |
| | Overall Apparent Prevalence H5/H7 (Upper 95% confidence limit for overall H5/H7 prevalence) | | 0.45% (1.0%) | | | Overall Apparent Prevalence H5/H7 (Upper 95% confidence limit for overall H5/H7 prevalence) | | 0.3% (1.16%) | | | Overall Apparent Prevalence H5/H7 (Upper 95% confidence limit for overall H5/H7 prevalence) | | 0.45% (1.21%) | | | Overall Apparent Prevalence H5/H7 (Upper 95% confidence limit for overall H5/H7 prevalence) | | 0% (0.85%) | | |

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Table 10 Total number of Other holdings, total number sampled, and total number of positive holdings reported for 2004, 2005, 2006 and 2007 by Member State

*Virological data/results in parentheses

| Member State | 2004 | | | | | 2005 | | | | | 2006 | | | | | 2007 | | | | |
|--------------|---|-------------------------------|-------------------|----|----|---|-------------------------------|-------------------|----|----|---|-------------------------------|-------------------|----|----|---|-------------------------------|-------------------|-------|----|
| | Total No. of Holdings | Total No. of Holdings Sampled | Positive Holdings | | | Total No. of Holdings | Total No. of Holdings Sampled | Positive Holdings | | | Total No. of Holdings | Total No. of Holdings Sampled | Positive Holdings | | | Total No. of Holdings | Total No. of Holdings Sampled | Positive Holdings | | |
| | | | Total | H5 | H7 | | | Total | H5 | H7 | | | Total | H5 | H7 | | | Total | H5 | H7 |
| AT | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| BE | 864 | 339 | 0 | 0 | 0 | NK | 5 | 0 | 0 | 0 | - | - | - | - | - | - | 1 | 1 | 0 | |
| BG | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 3 | 1 | 0 | |
| CY | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | NK | 16 | 0 | |
| CZ | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| DE | 40 | 2 (38) | 0 | 0 | 0 | - | - | - | - | - | - | - | - | - | - | - | NK | 3 | 0 | |
| DK | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| EE | 13 | 13 | 0 | 0 | 0 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| EL | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| ES | 179 | 49 | 2 | 2 | - | 525 | 247 | 0 | 0 | 0 | 3737 | 649 | 6 | 6 | 0 | 3151 | 316 | 3 | 2 | |
| FI | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| FR | 6404 | 267 | 2 | 0 | 0 | 4726 | 156 | 2 | 1 | 0 | - | - | - | - | - | - | - | - | - | |
| HU | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | NK | 7 | 0 | |
| IE | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| IT | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 1213 | 1020 | 7 (5) | |
| LT | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 4 | 7 | 0 | |
| LU | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| LV | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 5 | 5 | 0 | |
| MT | 24 | 23 | 0 | 0 | 0 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| NL | 350 | 1251 | 0 | 0 | 0 | 254 | 1375 | 0 | 0 | 0 | - | - | - | - | - | - | - | - | - | |
| PL | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| PT | 15 | 15 | 0 | 0 | 0 | 38 | 38 | 0 | 0 | 0 | - | - | - | - | - | - | - | - | - | |
| RO | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 11 | 13 | 0 | |
| SE | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| SI | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 639 | 12 | 0 | |
| SK | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 6 | 4 | 0 | |
| UK | - | 1 | 0 | 0 | 0 | - | - | - | - | - | - | - | - | - | - | - | NK | 9 | 0 | |
| Total | 7889 | 1958 | 4 | 2 | 0 | 5543 | 1821 | 2 | 1 | 0 | 3737 | 649 | 6 | 6 | 0 | 5033 | 1414 | 13 (5) | 3 | |
| | Overall Apparent Prevalence H5/H7 (Upper 95% confidence limit for overall H5/H7 prevalence) | | 0.1% (0.30%) | | | Overall Apparent Prevalence H5/H7 (Upper 95% confidence limit for overall H5/H7 prevalence) | | 0.06% (0.24%) | | | Overall Apparent Prevalence H5/H7 (Upper 95% confidence limit for overall H5/H7 prevalence) | | 0.9% (1.74%) | | | Overall Apparent Prevalence H5/H7 (Upper 95% confidence limit for overall H5/H7 prevalence) | | 0.9% (1.39%) | | |

ANNEX II DESCRIPTIVE RESULTS FOR MEMBER STATES

Specific comments relating to individual Member State's programmes

The total number of holdings reported for each poultry category is given in parentheses in the text below. Information is also given on whether the required sample size was met, and where the total number of holdings was not reported, if the number sampled was equal to or exceeded the required sample size, then the number sampled was reported as being met.

Austria

- Testing results from holdings sampled were reported from laying hens, fattening turkeys, fattening ducks, fattening geese and ratites.
- 60 laying hen holdings were sampled (1,596 total).
- 75 fattening turkey holdings were sampled (111 total).
- 37 duck/geese holdings were sampled (37 total), submitted and reported as
 - Six fattening duck holdings (six total)
 - 31 fattening geese holdings (31 total)
- Five ratite holdings were sampled (five total).
- Austria sampled the required number of holdings for the categories laying hens, fattening ducks, fattening geese, and ratites, and insufficient holdings were sampled in the fattening turkey category.
- Austria reported from six regions overall. The number of regions sampled varied by poultry category.
- **No positive holdings were reported, as in 2006, 2005 and 2004.**

Belgium

- Testing results from holdings sampled were reported from chicken breeders, laying hens, free range laying hens, fattening turkeys, breeder turkeys, backyard flocks, fattening ducks, breeder ducks, breeder geese, game birds, ratites, and others.
- 303 laying hen holdings were sampled (381 total)
- 84 free-range laying hen holdings were sampled (97 total)
- 204 chicken breeder holdings were sampled (225 total)
- 45 fattening turkey holdings were sampled (39 fattening turkey holdings total)
- Three breeder turkey holdings were sampled (three total)
- 24 backyard flocks were sampled (45 total)
- 23 duck/geese holdings were sampled (24 total) and reported as
 - 16 fattening duck holdings were sampled (17 total).

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- Four breeder duck holdings were sampled (four total).
- Three breeder geese holdings were sampled (Three total).
- 16 game bird holdings were sampled (25 total)
- 19 ratite holdings were sampled (33 total)
- One other holding was sampled (one total)
- The required number of holdings was sampled for the chicken breeders, laying hens/free-range laying hens, fattening turkeys, turkey breeder and others categories; however, insufficient numbers of holdings were sampled in categories backyard flocks, ducks/geese, game birds, and ratites.
- Belgium reported from ten regions overall. The number of regions sampled varied by poultry category.
- **As in 2006 and 2005 positive holdings were reported.**
- **One laying hen holding and one free-range laying hen holding were serologically positive for H7 influenza A virus. One backyard flock holding, two breeder duck holdings, one breeder geese holding and one 'other' holding were serologically positive for H5 influenza A virus. Three of these, one positive backyard flock, one positive breeder duck and the other positive, were from the same holding, but reported here in the separate categories.**
- *Four positive holdings were reported in 2006. Two duck and geese holdings and two laying hen holdings were serologically positive for H5 influenza A virus..*
- *Nine positive holdings/samples were reported in 2005. Seven holdings were subtype H5, one subtype H7 and one LPAI H3N1.*
- *No positive samples were reported in 2004.*

Bulgaria

- Testing results from holdings sampled were reported from chicken breeders, laying hens, broilers, turkey breeders, turkey fatteners, backyard flocks, fattening ducks, game birds (partridges, pheasants, ducks and quails), ratites and others.
- 115 chicken breeder holdings were sampled (16 total).
- 1,348 laying hen holdings were sampled (242 total).
- 210 broiler holdings were sampled (169 total).
- 45 turkey breeder holdings were sampled (ten total).
- One turkey fattener holdings were sampled (one total)
- 8,667 backyard flock holdings were sampled (694,880 total).
- 1,348 fattening duck holdings were sampled (666 total).
- 113 game bird holdings were sampled (17 total).
- One ratite holding was sampled (total not known).

- One other holding (zoo birds) were sampled (three total- zoo and hatchery)
- The required number of holdings were sampled in the chicken breeder, laying hens, broiler, turkey fatteners, turkey breeders, backyard flocks, fattening ducks and game birds categories, however, insufficient numbers were sampled in the category others. It is not known if sufficient numbers were sampled in the ratite category as the total number of holdings was not reported.
- Bulgaria reported from 47 regions overall. The number of regions sampled varied by poultry category.
- **One positive holding was reported, a fattening duck holding virologically positive for influenza A virus - other subtype, neither H5 or H7.**

Cyprus

- Testing results from holdings sampled were reported from chicken breeders, laying hens, broilers, fattening turkeys, backyard flocks, fattening ducks, game birds (partridges and quails) and ratites.
- 41 laying hen holdings were sampled (30 total).
- Two broiler holdings were sampled (140 total).
- 22 chicken breeder holdings were sampled (19 total)
- Five fattening turkey holdings were sampled (eight total).
- 30 backyard flocks were sampled (8,530 total)
- Two fattening duck holdings were sampled (one total).
- Five game bird holdings were sampled (seven total).
- Eight ratite holdings were sampled (20 total).
- 16 other holdings (captive/zoo birds) were sampled (total not known).
- Cyprus sampled the required number of holdings for the categories chicken breeders, laying hens, and fattening ducks, and insufficient samples in the broilers, fattening turkeys, backyard flocks, game birds, and ratite categories. It is not known if sufficient numbers were sampled in the others category as the total number of holdings was not reported.
- Cyprus reported as one region.
- **No positive holdings were reported, as in 2006 and 2005.**

Czech Republic

- Testing results from holdings sampled were reported from laying hens, broilers, turkey fatteners, breeder ducks, breeder geese, and game birds (mallards).
- 48 laying hen holdings were sampled (92 total).
- One broiler holding was sampled (15 total).

- 57 turkey fattener holdings were sampled (71 total)
- 25 breeder duck holdings were sampled (20 total).
- 15 breeder geese holdings were sampled (11 total).
- 12 game bird holdings were sampled (12 total).
- The required number of holdings was sampled in the breeder ducks, breeder geese and game birds categories; however, insufficient numbers were sampled in the categories laying hens, broilers and turkey fatteners.
- Czech Republic reported from 13 regions overall. The number of regions sampled varied by poultry category.
- **Unlike in 2006 and 2005, positive holdings were reported.**
- **One broiler holding was virologically/PCR positive for influenza A virus subtype H5.**
- **One turkey fattener holding was virologically/PCR positive for influenza A virus subtype H5.**
- **Four breeder duck holdings were serologically positive for influenza A virus subtype H5.**
- **Four breeder geese holdings were serologically positive for influenza A virus subtype H5.**
- **Two game bird holdings were PCR positive for influenza A virus.**
- *No positive holdings were reported in 2006 or 2005.*

Denmark

- Testing results from holdings sampled were reported from laying hens (in risk areas), free-range laying hens, chicken breeders, fattening turkeys, fattening ducks, breeder ducks, fattening geese, breeder geese, and game birds (pheasants, partridges, rock partridges and red-legged partridges and mallards for release/restocking). Mallards for release in nature/restocking submitted in the others category were reported in the game birds category.
- 490 chicken breeder holdings were sampled (480 total).
- 86 laying hen holdings were sampled (57 total).
- 341 free-range laying hen holdings were sampled (127 total).
- 66 fattening turkey holdings were sampled (120 total).
- 38 duck/geese holdings were sampled (144 total), submitted and reported as
 - Eight fattening duck holdings were sampled (111 total)
 - 13 breeder duck holdings were sampled (11 total)
 - Four fattening geese holdings were sampled (12 total)
 - 13 breeder geese holdings were sampled (ten total)

- 265 game bird holdings were sampled (262 total). Pheasants, partridges, rock partridges and red-legged partridges were sampled by Denmark, and 'mallards for release in nature' submitted in the others category were reported in this category.
- Denmark sampled the required number of holdings for the categories chicken breeders, laying hens/free-range laying hens, and game birds. The required number sampled was not met in the turkey fatteners, and ducks/geese categories.
- Denmark reported as one region.
- **As in 2006 positive holdings were reported this year.**
- **One free-range laying hen holding was serologically positive for influenza A virus subtype H7.** *In 2006, two free-range laying hen holdings were serologically positive for influenza A viruses (one subtype H5 and one subtype H7. The H7 positives were from two flocks at the same holding).*
- **Four breeder geese holdings and two breeder ducks holdings were serologically positive for influenza A virus subtype H5. Three breeder duck (mallard breeder duck) holdings were serologically positive for influenza A virus subtype H5.** *In comparison, in 2006 four ducks and geese holdings were serologically positive for influenza A viruses (three subtype H5 and one subtype H7).*
- **Two game bird holdings were positive for influenza A viruses, with one pheasant holding with chickens and one holding with mallard ducklings testing PCR positive for influenza A virus.**
- *In 2006, three game bird holdings were virologically positive for influenza A viruses (All holdings were other subtype, neither H5 or H7). Three Mallard holdings were serologically positive for influenza A viruses (one subtype H5, one subtype H7 and one positive for both H5 and H7 subtype) In addition six Mallard holdings were virologically positive for influenza A viruses (three subtype H5 and three other subtypes).*
- *No positives were reported in 2005 and 2004.*

Estonia

- Testing results from holdings sampled were reported from chicken breeders, laying hens, and game birds (pheasants and quails).
- One chicken breeder holding was sampled (one total).
- 21 laying hen holdings were sampled (3,487 total).
- One game bird holding (quail) was sampled (87 total). These data were originally submitted in the others category, but have been reported in the game birds category.
- Estonia sampled the required number of holdings for the chicken breeder category, and insufficient numbers were sampled in the laying hens and game birds categories.
- Estonia reported from one region overall.
- **Unlike in 2005 and 2006, positive holdings were reported.**
- **Five laying hen holdings were serologically positive for influenza A virus for a subtype other than H5 or H7 (the subtype was H9).**

Finland

- Testing results from holdings sampled were reported from laying hens, free-range laying hens, chicken breeders, broilers, fattening turkeys, breeder turkeys, backyard flocks, fattening ducks, breeder ducks, fattening geese, breeder geese, feathered game birds and ratites.
- 16 laying hen holdings were sampled (938 total).
- Eight free-range laying hen holdings were sampled (29 total).
- 26 broiler holdings were sampled (30 total).
- 25 fattening turkey holdings were sampled (65 total).
- Nine breeder turkey holdings were sampled (eight total).
- One backyard flock holding was sampled (one total).
- Five fattening duck holdings were sampled (five total).
- One breeder duck holding was sampled (one total).
- Three fattening geese holdings were sampled (three total).
- One breeder geese holding was sampled (nine total).
- 11 game bird (ducks and pheasant) holdings were sampled (15 total).
- Seven ratite holdings were sampled (six total).
- The required number of holdings was sampled for the category turkey breeders, backyard flocks and ratites. Insufficient holdings were sampled in the categories chicken breeders, laying hens/free-range laying hens, broilers, fattening turkeys, ducks/geese and game birds categories were taken.
- Finland reported from four regions overall. The number of regions sampled varied by poultry category.
- **One serologically positive geese holding was reported for influenza A virus subtype H5. The holding was virologically negative.**
- *In 2006 two duck and geese holdings were serologically positive for influenza A virus subtype H5. No positives were reported in 2005 and 2004.*

France

- Testing results from holdings sampled were reported from free-range laying hens, free-range broilers, fattening turkeys, breeder turkeys, backyard flocks, fattening ducks, game birds (pheasants, partridges, and mallards) and others (breeder palmipeds submitted in others were reported in breeder ducks or breeder geese based on an estimate provided of approximately 83% of them being breeder ducks and 17% breeder geese. Free-range meat turkeys, and meat ducks submitted in others were reported in fattening turkeys and fattening ducks respectively).
- 60 free-range laying hen holdings were sampled (1,716 total).
- 145 free-range broiler holdings were sampled (4,807 total).

- 144 fattening turkey holdings (1,604 total).
- 73 turkey breeder holdings were sampled (311 total)
- 113 turkey breeder holdings were sampled (10,989 total)
- 170 fattening ducks holdings were sampled (10,989 total).
- 124 game bird holdings were sampled (10,989 total).
- 366 other (breeder palmipeds) holdings were sampled (4,014 total) reported as
 - 306 breeder duck holdings were sampled (3,345 total).
 - 61 breeder geese holdings were sampled (669 total).
- France sampled the required number of holdings for the categories free-range laying hens, free-range broilers, fattening turkeys, backyard flocks, fattening ducks, breeder ducks, breeder geese, and game birds. Insufficient holdings were sampled in the turkey breeder category.
- France reported from 17 regions overall. The number of regions sampled varied by poultry category.
- **As with 2006, 2005 and 2004, positive holdings were found.**
- **Two fattening duck holdings were serologically positive for influenza A virus H5 subtype.**
- **Thirty breeder duck holdings were serologically positive for influenza A virus H5 subtype. Seventeen breeder geese holdings were serologically positive for influenza A viruses, 16 for H5 subtype and one for H7 subtype.** *In comparison in the 2006 survey, 40 duck and geese holdings were serologically positive for influenza A virus H5 subtype. Two of these were also virologically positive for H5 influenza A virus. Whilst in the 2005 survey 46 duck holdings and 12 geese holdings were positive for avian influenza subtypes H5 & H7, with a further two inconclusive for H5 subtype.*
- **One game bird holding (mallard) was serologically positive for influenza A virus H5 subtype.** *In comparison in 2006, four game bird holdings were serologically positive for H5 influenza A virus. One of these was a pheasant and three were mallard holdings.*
- *In addition in 2006 four fattening turkey holdings were serologically positive for influenza A viruses. One was H5 subtype and this was a free-range meat turkey holding, the three other holdings (one free-range and two housed meat turkey) were serologically positive holdings for a subtype other than H5 or H7. (In 2005, three out of 224 holdings of free range and meat turkeys were serologically positive for influenza A viruses, none were positive for H5 or H7 subtype. In the 2004-2005 survey 11 out of 242 holdings of fattening turkeys were positive [one was H5 positive]).*
- *In 2006, eight Turkey breeder holdings were serologically positive for influenza A viruses (none were H5 or H7 subtype). No positive holdings were found in the previous survey, 2005-2006. In the 2005 survey two out of 156 free-range chicken holdings tested positive.*

Germany

- Testing results from holdings sampled were reported from chicken breeders, laying hens, free-range laying hens, broilers, fattening turkeys, breeder turkeys, backyard flocks, fattening ducks, breeder ducks, fattening geese, breeder geese, game birds, ratites and others (zoo birds/passeriformes).

- Eight chicken breeder holdings were sampled (44,840 total).
- 126 laying hen holdings were sampled (total not known).
- 27 free-range laying hen holdings were sampled (total not known).
- Three broiler holdings were sampled (total not known).
- 91 fattening turkey holdings were sampled (total not known).
- 23 breeder turkey holdings were sampled (total not known).
- 220 backyard flock holdings were sampled (total not known).
- 188 fattening duck were sampled (total not known).
- Ten breeder duck holdings were sampled (total not known).
- 115 fattening geese holdings were sampled (total not known).
- 14 breeder geese holdings were sampled (total not known).
- Nine game bird holdings were sampled (total not known).
- 13 ratite holdings were sampled (578 total).
- Three other (zoo birds/Passeriformes) holdings were sampled (total not known).
- The required number of holdings was sampled for the laying hens/ free-range laying hens, fattening turkeys, backyard flocks and duck/geese categories and insufficient numbers for the chicken breeders and ratites categories. It is not known whether sufficient holdings were sampled for broilers, turkey breeders, game birds, and others categories as the total was not known.
- Germany reported from 31 regions. The number of regions sampled varied by poultry category.
- **As in 2006 and 2005 positives were reported.**
- **One free-range laying hen holding was serologically and virologically/PCR positive for influenza A virus for a subtype other than H5 or H7 (subtype H6).** *In 2006, 16 laying hen holdings were serologically positive for influenza A viruses, of subtype(s) other than H5 or H7. None of these positives were from free-range hens.*
- **Eight backyard flock holdings were serologically positive for influenza A virus for a subtype other than H5 or H7.** *In comparison, in last year's survey 10 backyard flock holdings were serologically positive for influenza A viruses, other than H5 or H7.*
- **Two fattening duck holdings and one fattening geese holding were all serologically positive for influenza A virus H5 subtype.** *Similar numbers were reported in 2006, where three duck and geese holdings were serologically positive for H5 (2) or H7 (1), two holdings for subtype H5 and one holding for subtype H7. In 2005 two duck/geese holdings were serologically positive for influenza A viruses, one holding for subtype H5 and one holding for H7. One holding was virologically positive for H6N1 influenza A virus.*
- *Other positive reported in 2006 were one fattening turkey holding was serologically positive for influenza A viruses, other than H5 or H7. One game bird holding was serologically positive for influenza A viruses other than H5 or H7.*

- *No ratite holdings were serologically positive for influenza A viruses as in 2006, unlike in the 2005 survey when one ratite holding was serologically positive for influenza A virus and a follow-up investigation revealed the presence of H5N3 subtype.*

Greece

- Testing results from holdings sampled were reported from chicken breeders, laying hens, broilers, free-range broilers, fattening turkeys, turkey breeders, backyard flocks, fattening ducks, game birds and ratites.
- 35 chicken breeder holdings were sampled (106 total).
- 63 laying hen holdings were sampled (372 total).
- 66 broiler holdings were sampled (1,191 total).
- Four free-range broiler holdings were sampled (43 total).
- 27 fattening turkey holdings were sampled (47 total).
- One turkey breeder holdings was sampled (one total).
- 25 backyard flock holdings were sampled (147,743 total).
- One fattening duck holding was sampled (one total).
- 14 game bird holdings were sampled (15 total).
- Four ratite holdings were sampled (28 total).
- The required number of holdings for categories laying hens, broilers/free-range broilers, turkey breeders and fattening ducks were sampled, however, insufficient numbers of holdings were sampled in the categories chicken breeders, fattening turkeys, backyard flocks, game birds, and ratites.
- Greece reported from 13 regions overall. The number of regions sampled varied by poultry category.
- **No positive holdings were reported as in 2006 and 2005.** *In 2004-2005 two laying hen holdings, two broiler holdings and one fattening turkey holding were found positive for type A influenza viruses (on ELISA), but negative for subtypes H5 & H7.*

Hungary

- Testing results from holdings sampled were reported from holdings of chicken breeders, laying hens/free-range laying hens, broilers, fattening turkeys, turkey breeders, backyard flocks, fattening and breeder ducks, fattening and breeder geese, game birds (pheasant, wild duck/mallard and guinea fowl), ratites and others (pigeons and ornamental birds).
- 39 chicken breeder holdings were sampled (121 total).
- 186 laying hen holdings were sampled (504 total).
- Six free-range laying hen holdings were sampled (six total).
- Five broiler holdings were sampled (204 total).

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- 130 fattening turkey holdings were sampled (total 369).
- Eight breeder turkey holdings were sampled (total eight).
- 1,897 backyard flocks holdings were sampled (total not known).
- 126 holdings of fattening ducks were sampled (total 384).
- 12 holdings of breeder ducks were sampled (total 24).
- 194 holdings of fattening geese were sampled (total 602).
- 16 holdings of breeder geese were sampled (total 30).
- 40 holdings of game birds were sampled (total 43).
- Ten holdings of ratites were sampled (total 12).
- 7 “other poultry” holdings (pigeons and ornamental birds) were sampled (total not known).
- Hungary sampled the required number of holdings for the laying hens/free-range laying hens, fattening turkeys, breeder turkeys, backyard flocks, ducks/geese, and game birds categories. Insufficient numbers were sampled for the chicken breeders, broilers, and ratites categories. It is not known whether sufficient holdings were sampled for the others category as the total was not known.
- Hungary reported from 19 regions, but the number of regions sampled varied by poultry category.
- **As in the surveys carried out in 2006 and 2005, no positive holdings were reported.**

Ireland

- Testing results from holdings sampled were reported from chicken breeders, laying hens, free-range laying hens, free-range broilers, fattening turkeys, breeding turkeys, fattening ducks, and game birds (Mallards).
- 91 chicken breeder holdings were sampled (80 total).
- 59 laying hen holdings were sampled (87 total).
- 65 free-range laying hen holdings were sampled (99 total).
- Nine free-range broiler holdings were sampled (five total).
- 47 fattening turkey holdings were sampled (111 total).
- Two breeding turkey holdings were sampled (eight total).
- One fattening duck holding was sampled (three total).
- One game bird holding was sampled (one total).
- Ireland sampled the required number of holdings for the categories chicken breeders, laying hens/free-range laying hens, free-range broilers, and game bird categories, and insufficient numbers of holdings in categories fattening turkeys, breeding turkeys and fattening ducks.

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- Ireland reported from two regions. The number of regions sampled varied by poultry category.
- **Unlike in 2006, 2005 and 2004, positive holdings were reported in 2007.**
- **One free-range laying hen holding was serologically and virologically/PCR positive for influenza A virus for a subtype other than H5 or H7 (subtype H6)**
- **One game bird holding (mallard) was virologically/PCR positive for influenza A virus for a subtype other than H5 or H7 (subtype H11). This was serologically negative.**

Italy

- Testing results from holdings sampled were reported from chicken breeders, laying hens, free-range laying hens, broilers, free-range broilers fattening turkeys, breeder turkeys, backyard flocks, fattening and breeder ducks, fattening and breeder geese, ratites, game birds, and others (guinea fowl and quail submitted in the others category were reported in the game birds category).
- 693 chicken breeder holdings were sampled (399 total).
- 2,567 laying hen holdings were sampled (1,406 total).
- 307 free-range laying hen holdings were sampled (182 total).
- 35 broiler holdings were sampled (2,203 total).
- Nine free-range broiler holdings were sampled (100 total).
- 2,127 fattening turkey holdings were sampled (967 total).
- 128 breeding turkey holdings were sampled (64 total).
- 1,903 backyard flocks holdings were sampled (140,672 total).
- 236 fattening duck holdings were sampled (178 total).
- 67 breeder duck holdings were sampled (50 total).
- 92 fattening geese holdings were sampled (78 total).
- 16 breeder geese holdings were sampled (eight total).
- 911 game bird holdings were sampled (729 total)
- 128 ratite holdings were sampled (187 total).
- 1,020 other holdings were sampled (1,213 total).
- The required number of holdings were sampled for the chicken breeders, laying hens/free-range laying hens, fattening turkeys, breeder turkeys, backyard flocks, ducks/geese, game birds, ratite and other categories. However, insufficient numbers of holdings were sampled in the broilers/free-range broiler categories.
- Italy reported from 21 regions. The number of regions sampled varied by poultry category.
- **As in 2006, positive holdings were reported.**

- **Five free-range laying hen holdings were serologically positive for influenza A virus for subtype H7.**
- **Six turkey fattener holdings were positive for influenza A virus for subtype H7. (Two of these were serologically positive for subtype H7, two were serologically and PCR positive for subtype H7, one was virologically and PCR positive for subtype H7, and one was serologically and virology/PCR positive for subtype H7).**
- **Five backyard flock holdings were serologically positive for influenza A viruses. One was positive for subtype H5 and four were positive for subtype H7.**
- **One breeder geese holding was virologically positive for H5 influenza A virus. *This is similar to 2006, when one duck and goose holding was serologically and virologically positive for H5 influenza A virus.***
- **One game bird (guinea fowl) holding was virologically/PCR positive for H7 influenza A virus. This same holding also had a serologically positive laying hen flock. *The one game bird holding reported in 2006 was serologically positive for H5 influenza A virus and in pheasant and partridge.***
- **Nine others (dealer farms/hobby flocks) holdings were positive for influenza A virus subtype H7. Seven of these were serologically positive, and two were virologically/PCR positive.**
- *(In 2005-2006, no positive holdings were reported, whilst in 2004-2005 two broiler holdings were positive for subtype H7 influenza A viruses, 27 fattening turkey holdings were positive for subtype H7 influenza A virus, one duck/geese holding was serologically positive for H5 influenza A virus and one ratite holding was also positive for H5 influenza A virus).*

Latvia

- Testing results from holdings sampled were reported from chicken breeders, laying hens, fattening turkeys, backyard flocks, fattening ducks, fattening geese, ratites, and others.
- One chicken breeder holding was sampled (one total).
- 24 laying hen holdings were sampled (25 total).
- One turkey fattener holding was sampled (one total).
- 81 backyard flock holdings were sampled (total not known).
- Two fattening duck holdings were sampled (two total).
- Three fattening geese holdings were sampled (three total).
- Two ratite holdings were sampled (two total).
- Five others holdings were sampled (five total).
- Latvia sampled the required number of holdings for the chicken breeders, fattening turkeys, backyard flocks, fattening ducks/geese, ratites, and others categories. However, insufficient holdings in the laying hens category.
- Latvia reported from five regions, but the number of regions sampled varied by poultry category.
- **No positive holdings were reported, as in the previous surveys for 2006 and 2005.**

Lithuania

- Testing results from holdings sampled were reported from chicken breeders, laying hens, broilers, breeder turkeys, fattening ducks, fattening geese, and others (pigeon/decorative pigeons and decorative parrot).
- Four chicken breeder holdings were sampled (four total).
- 28 laying hen holdings were sampled (eight total).
- 44 broiler holdings were sampled (nine total).
- 13 breeder turkey holdings were sampled (three total).
- Seven fattening duck holdings were sampled (three total).
- Four fattening goose holdings were sampled (three total).
- Seven other holdings were sampled (four total).
- Lithuania sampled the required number of holdings for the chicken breeders, laying hens broilers, turkey breeders, fattening ducks/geese, and others categories,
- Lithuania reported as three regions, but the number of regions sampled varied by poultry category.
- **No positive holdings were reported, as in the 2006, 2005 and 2004.**

Luxembourg

- Testing results from holdings sampled were reported from laying hens, broilers, backyard flocks and ratites (ostriches).
- 20 laying hen holdings were sampled (16 total).
- Two broiler holdings were sampled (four total).
- 14 backyard flock holdings were sampled (750 total).
- Four ratite holdings were sampled (one total).
- The required number of holdings was sampled for the categories laying hens and ratites, but not for the broiler and backyard flocks categories.
- Luxembourg reported from one region.
- **No positive holdings were reported, as in the 2006, 2005 and 2004.**

Malta

- As in the 2006 survey testing results from holdings sampled were reported from laying hens.
- 30 Laying hen holdings were sampled (305 total)
- 40 egg-layer holdings were due to be sampled in the submitted and approved programme.

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- 24 mixed poultry holdings were due to be sampled in the submitted and approved programme.
- One turkey holding was due to be sampled in the submitted programme.
- Malta did not sample the required number of holdings for the category laying hens.
- Malta reported from one region.
- **No holdings were positive, as in the previous years surveys in 2006 and 2005** (*in 2004-2005 14 laying hen holdings were reported positive for influenza A viruses, all 14 were negative for subtypes H5 and H7*).

The Netherlands

- Testing results from holdings sampled were reported from chicken breeders, laying hens, free-range laying hens, broilers, fattening turkeys, breeder turkeys, fattening ducks, and breeder ducks.
- 468 chicken breeder holdings were sampled (455 total).
- 1,341 laying hen holdings were sampled (1,372 total).
- 239 free-range laying hen holdings were sampled (205 total).
- 685 broiler holdings were sampled (678 total).
- 127 fattening turkey holdings were sampled (56 total).
- Six breeder turkey holdings were sampled (two total).
- 40 fattening duck holdings were sampled (72 total).
- Seven fattening duck holdings were sampled (13 total).
- In several categories the number of holdings sampled exceeded the total number of holdings given. As each holding was assumed to be sampled at least once, the 95% confidence interval for prevalence was calculated based on the total number of holdings given.
- The Netherlands sampled the required number of holdings for the chicken breeders, laying hens/free-range laying hens, broilers, fattening turkeys, breeder turkeys, however, insufficient numbers of holdings were sampled in categories fattening and breeder ducks.
- The Netherlands reported from 12 regions. The number of regions sampled varied by poultry category.
- **In contrast to the 2006 survey, no positive holdings were reported.**
- *In 2006, one chicken breeder holding was serologically positive for H7 influenza A virus. As with this/the 2007 survey, no positive holdings were reported in the 2005 survey. In 2004 one free-range layer holding was serologically positive for H7 subtype and three duck holdings were serologically positive for H5 subtype.*

Poland

- Testing results from holdings sampled were reported from chicken breeders, laying hens, fattening turkeys, fattening and breeder ducks, fattening and breeder geese, game birds and ratites.
- 107 chicken breeder holdings were sampled (127 total).
- 151 laying hen holdings were sampled (230 total).
- 169 turkey fattener holdings were sampled (201 total).
- 17 fattening duck holdings were sampled (218 total).
- 11 breeder duck holdings were sampled (178 total).
- 80 fattening geese holdings were sampled (242 total).
- 49 breeder geese holdings were sampled (200 total).
- 18 game bird holdings were sampled from two regions (18 total).
- 28 ratite holdings were sampled from two regions (33 total).
- Sufficient numbers of holdings were sampled for the categories chicken breeders, laying hens, fattening turkeys, ducks/geese, and game birds, and insufficient numbers of holdings were sampled in the ratites category.
- Poland reported from four regions. The number of regions sampled varied by poultry category.
- **Two breeder geese holdings were serologically positive for H5 influenza A virus.** *Whereas in the 2006 survey, although one goose breeder holding was initially serologically positive for H7 influenza A virus, in subsequent tests the samples were negative on serology and virology, and so the flock was judged to be negative for AI infection. Therefore no holdings were positive in 2006.*
- *In the 2005-2006 survey, two duck/geese holdings were serologically positive for H5 influenza A viruses but the results of the virological tests were negative. In 2004-2005 one duck/geese holding was serologically positive for H5 subtype.*

Portugal

- Testing results from holdings sampled were reported from chicken breeders, laying hens, broilers, free-range broilers, fattening turkeys, backyard flocks, fattening and breeder ducks, game birds and ratites. Quail holdings that were submitted in the others category were reported in the game birds category (although these birds were intended for human consumption only).
- 54 chicken breeder holdings were sampled (43 total).
- 95 laying hen holdings were sampled (143 total).
- One broiler holding was sampled in a restriction zone (one holding in total in the restriction zone, 587 total in the region and 2,362 total).
- 215 free-range broiler holdings were sampled (123 total).
- 103 fattening turkey holdings were sampled (206 total).

- 200 backyard flocks holdings were sampled (236,296 total).
- 15 fattening duck holdings were sampled (15 total).
- One breeder duck holdings were sampled (one total).
- 87 game bird holdings were sampled (309 total).
- Four ratite holdings were sampled (55 total).
- Portugal sampled the required number of holdings in the chicken breeders, laying hens, broilers/free-range broilers, fattening turkeys, backyard flocks, fattening and breeder ducks and game birds categories, however, insufficient numbers of holdings were sampled in the ratites category.
- Due to a restructuring of the Veterinary Services in 2007, Portugal reported from seven regions in the first quarter, and from five regions in quarters two to four.
- **In contrast to the 2006 and 2005 surveys, positive holdings were reported.**
- **One broiler holding was virologically and PCR positive for H5 influenza A virus. This holding was located in a restriction zone of an outbreak and it was not a random sample.**
- **Three game bird holdings were virologically and PCR positive for H5 influenza A virus, serology was not performed. Two were holdings of Red-legged Partridge (*Alectoris rufa*), and one was a Mallard (*Anas platyrhynchos*) holding.**

Romania

- Testing results from holdings sampled were reported from chicken breeders, laying hens, free-range laying hens, broilers, free-range broilers, fattening turkeys, breeder turkeys, backyard flocks, fattening and breeder ducks, fattening and breeder geese, game birds and others (zoo birds).
- 11 chicken breeder holdings were sampled (six total)
- 936 laying hen holdings were sampled (872 total)
- 157 free-range laying hen holdings were sampled (166 total)
- 374 broiler holdings were sampled (297 total).
- 450 free-range broiler holdings were sampled (438 total).
- 185 fattening turkey holdings were sampled (218 total).
- 68 breeder turkey holdings were sampled (69 total).
- 83,244 backyard flock holdings were sampled (2,015,011 total).
- 214 fattening duck holdings were sampled (214 total).
- 109 breeder duck holdings were sampled (108 total).
- 149 fattening geese holdings were sampled (148 total).
- 88 breeder geese holdings were sampled (88 total).

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- 58 game bird holdings were sampled (55 total).
- 13 others holdings were sampled (11 total).
- Romania sampled the required number of holdings in the chicken breeders, laying hens/free-range laying hens, broilers/free-range broilers, fattening turkeys, turkey breeders, backyard flocks, fattening and breeder ducks, fattening and breeder geese, game birds and others categories.
- Romania reported from eight regions, although the number of regions sampled varied by poultry category.
- **In this survey positive holdings were reported. One backyard flock holding was serologically (and virologically / PCR) positive for H5 influenza A virus.**

Slovak Republic

- Testing results from holdings sampled were reported from chicken breeders, laying hens, broilers, fattening turkeys, breeder turkeys, backyard flocks, fattening ducks, breeder geese, game birds, ratites and others (pigeons, psittacines).
- 65 laying hen holdings were sampled (50 total)
- 155 broiler holdings were sampled (148 total).
- 13 chicken breeder holdings were sampled (50 total)
- 13 fattening turkey holdings were sampled (11 total).
- Three breeder turkey holdings were sampled (four total).
- Two backyard flocks were sampled (two total).
- Eight fattening duck/geese holdings were sampled (seven total).
- One breeder geese holding was sampled (two total).
- 44 game bird holdings were sampled (35 total).
- 24 ratite holdings were sampled (17 total).
- Four others holdings were sampled (six total).
- The Slovak Republic sampled the required number of holdings for the categories laying hens, broilers, fattening turkeys, backyard flocks, fattening ducks, breeder geese, game birds and ratites, and insufficient numbers of holdings were sampled in categories chicken breeders, breeder turkeys, and others.
- Slovak Republic reported from four individual regions. The number of regions sampled varied by poultry category.
- **Unlike in 2006 and 2005, in 2007 positive holdings were reported.**
- **One fattening duck holding was serologically (and virologically/PCR) positive for influenza A virus for a subtype other than H5 or H7 (subtype H4).**

Slovenia

- Testing results from holdings sampled were reported from chicken breeders, laying hens, fattening turkeys, game birds, ratites, and others.
- 11 chicken breeder holdings were sampled (11 total).
- 54 laying hen holdings were sampled (122 total).
- 45 fattening turkey holdings were sampled (57 total).
- Nine game bird holdings were sampled (nine total).
- 18 ratite holdings were sampled (22 total).
- 12 others holdings were sampled (639 total). (According to the Slovenian survey programme the holdings submitted as others were with free-range poultry, so-called eco-holdings, on which more than one poultry species is present. All of selected holdings have laying hens and ducks, some of them also have geese, turkeys and broilers).
- The required number of holdings was sampled for the chicken breeder, laying hens, and game birds categories, and insufficient holdings in the categories fattening turkeys, ratites and others.
- Slovenia reported from one region.
- **No positive holdings were reported, as in the surveys from 2006 and 2005.**

Spain

- Testing results from holdings sampled were reported from chicken breeders, laying hens, free-range laying hens, broilers, free-range broilers, fattening turkeys, breeder turkeys, backyard flocks, fattening ducks, fattening geese, game birds, ratites and others.
- 169 chicken breeder holdings were sampled (513 total).
- 458 laying hen holdings were sampled (975 total).
- 11 free-range laying hen holdings were sampled (90 total).
- 416 broiler holdings were sampled (5,141 total).
- One free-range broiler holding was sampled (one total).
- 180 fattening turkey holdings were sampled (784 total).
- 15 breeder turkey holdings were sampled (99 total).
- 3,480 back-yard flocks were sampled from 15 regions (25,011 total)
- 40 fattening duck holdings were sampled (74 total).
- Three fattening geese holdings were sampled (four total).
- 134 game bird holdings were sampled (488 total).
- 31 ratite holdings were sampled (200 total).
- 316 'other' holdings were sampled (3,151 total).

- Spain sampled the required number of holdings for the categories chicken breeders, laying hens/free-range laying hens, broilers/free-range broilers, fattening turkeys, backyard flocks, game birds, and others. Insufficient numbers of holdings were sampled in the category breeder turkeys, ducks/geese, and ratites.
- Spain reported from 19 regions. The number of regions sampled varied by poultry category.
- **As in 2006, 2005 and 2004, positive holdings were found.**
- **Five laying hen holdings were serologically positive for influenza A viruses, one for H5 subtype and four of subtypes other than H5 or H7.** *Overall this is half the number found for this category in 2006 where ten laying hen holdings were serologically positive for influenza A viruses, one for H5 subtype and the remaining nine of subtypes other than H5 or H7.*
- **24 backyard flock holdings were serologically positive for influenza A viruses, of subtypes other than H5 or H7.** *In 2006, two backyard flocks were serologically positive for H5 subtype which was confirmed by PCR.*
- **Eight fattening duck holdings were found positive. Six were positive for H5 influenza A virus, three were serologically positive and three were PCR positive. One of the holdings positive by PCR for subtype H5 was also PCR positive for subtype H7. Two holdings were PCR positive for influenza A viruses, no subtype was given.**
- *In 2006 four duck and geese holdings were serologically positive to H5 subtype, of which two were also seropositive for H7 subtype. Of these four holdings, single duck and goose holdings were each virologically positive for the H5 and H7 subtypes.*
- **One game bird holding was virologically/PCR positive for influenza A virus for a subtype other than H5 or H7 (subtype H6).** *This was originally submitted in the others category, but as it was a pheasant (*Phasianus colchicus*) holding, it has been reported in the game bird category.*
- **Three others holdings were found serologically positive for influenza A viruses. Two were serologically positive for subtype H5 and two were serologically positive for subtype H7. One holding was positive for both subtype H5 and H7- so three were positive overall.** *In 2006, six 'other' holdings were serologically positive for influenza A viruses, and all of these were identified as subtype H5. These positive holdings were all zoological samples/holdings from the Andalusia region.*
- *In 2006, two ratite holdings were positive for H5 by PCR.*
- **Again, the number of positives found has increased since the 2005 and 2006 surveys.** *In 2005 one duck/geese holding was positive for H5 subtype on serology and PCR. In 2004, two ratite holdings were positive for influenza A viruses; one was further identified as subtype H5 and the other subtype H7. Two 'other' holdings were also positive for influenza A viruses and were both further identified as subtype H5.*

Sweden

- Testing results from holdings sampled were reported from chicken breeders, laying hens/free-range laying hens, broilers, fattening turkeys, breeder turkeys, fattening ducks, fattening geese, game birds (pheasants and mallards), and ratites.
- 40 chicken breeder holdings were sampled (53 total).
- 42 laying hen holdings were sampled (349 total).

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- 18 free-range laying hen holdings were sampled (86 total).
- 17 broiler holdings were sampled (18 total).
- 23 fattening turkey holdings were sampled (29 total).
- Four turkey breeder holdings were sampled (four total).
- Three fattening duck holdings were sampled (three total).
- 16 fattening geese holdings were sampled (22 total).
- 30 game bird holdings were sampled (30 total).
- Ten ratite holdings were sampled (18 total).
- The required number of holdings were sampled for the categories laying hens/free-range laying hens, breeder turkeys, fattening ducks, and game birds, insufficient numbers were sampled in the chicken breeders, broilers, fattening turkeys, fattening geese and ratites categories.
- Sweden reported from seven regions. The number of regions sampled varied by poultry category.
- **In contrast to the 2006 and 2005 surveys, positive holdings were reported.**
- **Three game bird holdings were serologically positive for influenza A viruses of both subtypes H5 and H7.**

United Kingdom

- Testing results from holdings sampled were reported from chicken breeders, laying hens, free-range laying hens, fattening turkeys, breeder turkeys, fattening ducks, fattening geese, game birds (quails), ratites, and others.
- 40 chicken breeder holdings were sampled (376 total).
- 52 laying hen holdings were sampled from four regions (985 total).
- 11 free-range laying hen holdings were sampled (246 total).
- 79 fattening turkey holdings were sampled (610 total).
- Eight breeder turkey holdings were sampled (31 total).
- 41 fattening duck/geese holdings were sampled (1,761 total).
- 66 fattening geese holdings were sampled (306 total).
- 25 game bird (quail) holdings were sampled (86 total).
- Nine ratite holdings were sampled from two regions (38 total).
- Nine others holdings were sampled from two regions (total not known).
- The UK sampled the required number of holdings in the categories laying hens/free-range laying hens, and fattening ducks/geese. The number of sampled holdings required was not met in the chicken breeders, fattening turkeys, breeder turkeys, game birds, ratites, and others categories.

- The UK reported from 32 regions, the number of regions sampled varied by poultry category.
- **As in the 2006 and 2005, positives were found, and overall a higher number were found than in the previous surveys in 2006 and 2005.**
- **Two fattening duck holdings tested positive serologically for influenza A virus, one for subtype H5 and one for subtype H7.**
- **Seven fattening geese holdings tested positive serologically for H5 subtype.**
- **One game bird holding was serologically positive for influenza A virus subtype H5.**
- *This is an increase from 2006, where one goose holding tested positive serologically for H5 subtype, and one duck holding was serologically positive for both H5 and H7 subtypes. Whilst in 2005-2006, one goose holding was serologically positive for H5 subtype but virologically negative.*

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| Annex II Table 1 Total number of sampled holdings, total holdings (in parentheses) and proportion sampled by Member States and poultry category | | | | | | | | | | | | | | | | | |
|---|--------------------------|---------------------------|-------------------------|--------------------------|------------------------|--------------------------|-------------------------|------------------------------|---------------------------|-------------------------|-------------------------|------------------------|--------------------------|--------------------------|-------------------------|---|---|
| A green tick indicates that the appropriate number of holdings were sampled by a Member State, whilst a red cross indicates that less than the required sample number were collected. | | | | | | | | | | | | | | | | | |
| Member States | Chicken Breeders | Laying Hens | Free Range Laying Hens | Broilers | Free Range Broilers | Turkey Fatteners | Turkey breeders | Backyard Flocks | Fattening Ducks | Breeder Ducks | Fattening Geese | Breeder Geese | Game Birds | Ratites | Others | Total Holdings sampled and proportion of EU total | Total Holdings and proportion of EU total |
| AT | | 60 ✓ (1596) 3.76% | | | | 75 ✗ (111) 67.57% | | | 6 ✓ (6) 100% | | 31 ✓ (31) 100% | | | 5 ✓ (5) 100% | | 177 0.14% | 1749 0.05% |
| BE | 204 ✓ (225) 91.1% | 303 ✓ (381) 79.5% | 84 ✓ (97) 86.6% | | | 45 ✓ (39) 100% | 3 ✓ (3) 100% | 24 ✗ (45) 53% | 16 ✗ (17) 94% | 4 ✗ (4) 100% | | 3 ✗ (3) 100% | 16 ✗ (25) 64% | 19 ✗ (33) 57.6% | 1 ✓ (1) 100% | 722 0.57% | 872 0.03% |
| BG | 115 ✓ (16) 100% | 1348 ✓ (242) 100% | | 210 ✓ (169) 100% | | 1 ✓ (1) 100% | 45 ✓ (10) 100% | 8667 ✓ (694880) 1% | 1348 ✓ (666) 100% | 0 ✓ (7) 0% | | | 113 ✓ (17) 100% | 1 (NK) 33% | 1 ✗ (3) 33% | 11849 9.31% | 696011 20.4% |
| CY | 22 ✓ (19) 100% | 41 ✓ (30) 100% | | 2 ✗ (140) 1.4% | | 5 ✗ (8) 62.5% | | 30 ✗ (8530) 0.35% | 2 ✓ (1) 100% | | | | 5 ✗ (7) 71.4% | 8 ✗ (20) 40% | 16 (NK) | 131 0.10% | 8755 0.26% |
| CZ | | 48 ✗ (92) 52% | | 1 ✗ (15) 6.67% | | 57 ✗ (71) 80.3% | | | | 25 ✓ (20) 100% | | 15 ✓ (11) 100% | 12 ✓ (12) 100% | | | 158 0.12% | 221 0.01% |
| DE | 8 ✗ (44840) 0.02% | 126 ✓ (NK) (NK) | 27 ✓ (NK) (NK) | 3 (NK) | | 91 ✓ (NK) (NK) | 23 (NK) | 220 ✓ (NK) (NK) | 188 ✓ (NK) (NK) | 10 ✓ (NK) (NK) | 115 ✓ (NK) (NK) | 14 ✓ (NK) (NK) | 9 (NK) | 13 ✗ (578) 2.25% | 3 (NK) | 850 0.67% | 45418 1.33% |
| DK | 490 ✓ (480) 100% | 86 ✓ (57) 100% | 341 ✓ (127) 100% | | 0 ✗ (62) 0% | 66 ✗ (120) 55% | | | 8 ✗ (111) 7.2% | 13 ✗ (11) 100% | 4 ✗ (12) 33% | 13 ✗ (10) 100% | 265 ✓ (262) 100% | | | 1286 1.01% | 1252 0.04% |
| EE | 1 ✓ (1) 100% | 21 ✗ (3487) 0.6% | | 0 ✗ (107) 0% | | 0 ✗ (165) 0% | | 0 ✗ (2113) 0% | | | | | | 1 ✗ (87) 1.15% | 0 ✗ (32) 0% | 23 0.02% | 5992 0.18% |
| EL | 35 ✗ (106) 33% | 63 ✓ (372) 16.9% | | 66 ✓ (1191) 5.54% | 4 ✓ (43) 9.3% | 27 ✗ (47) 57.45% | 1 ✓ (1) 100% | 25 ✗ (147743) 0.02% | 1 ✓ (1) 100% | | | | 14 ✗ (15) 93% | 4 ✗ (28) 14.29% | | 240 0.19% | 149547 4.38% |
| ES | 169 ✓ (513) 32.9% | 458 ✓ (975) 46.97% | 11 ✓ (90) 12.2% | 416 ✓ (5141) 8.09% | 1 ✓ (1) 100% | 180 ✓ (784) 22.96% | 15 ✗ (99) 15% | 3480 ✓ (25011) 13.91% | 40 ✗ (74) 54% | | 3 ✗ (4) 75% | | 134 ✓ (488) 27.46% | 31 ✗ (200) 15.5% | 316 ✓ (3151) 10% | 5254 4.13% | 36531 1.07% |
| FI | 30 ✗ (38) 78.9% | 16 ✗ (938) 1.7% | 8 ✗ (29) 27.6% | 26 ✗ (30) 86.7% | | 25 ✗ (65) 38.5% | 9 ✓ (8) 100% | 1 ✓ (1) 100% | 5 ✗ (5) 100% | 1 ✗ (1) 100% | 3 ✗ (3) 100% | 1 ✗ (9) 11% | 11 ✗ (15) 73% | 7 ✓ (6) 100% | | 143 0.11% | 1148 0.03% |
| FR | | | 60 ✓ (1716) 3.5% | | 145 ✓ (4807) 3% | 144 ✓ (1604) 8.98% | 73 ✗ (311) 23.47% | 113 ✓ (10989) 1% | 170 ✓ (10989) 1.55% | 305 ✓ (3354) 9.1% | | 61 ✓ (669) 9.1% | 124 ✓ (10989) 1% | | | 1195 0.94% | 45419 1.33% |
| HU | 39 ✗ (121) 32.2% | 186 ✓ (504) 36.9% | 6 ✓ (6) 100% | 5 ✗ (204) 2.45% | | 130 ✓ (369) 35.2% | 8 ✓ (8) 100% | 1897 ✓ (NK) (NK) | 126 ✓ (384) 32.8% | 12 ✓ (24) 50% | 194 ✓ (602) 32.2% | 16 ✓ (30) 53.3% | 40 ✓ (43) 93% | 10 ✗ (12) 83% | 7 (NK) | 2676 2.10% | 2307 0.07% |
| IE | 91 ✓ (80) 100% | 59 ✓ (87) 67.8% | 65 ✓ (99) 65.66% | | 9 ✓ (5) 100% | 47 ✗ (111) 42% | 2 ✗ (8) 25% | | 1 ✗ (3) 33% | | | | 1 ✓ (1) 100% | | | 275 0.22% | 394 0.01% |
| IT | 693 ✓ (399) 100% | 2567 ✓ (1406) 100% | 307 ✓ (182) 100% | 35 ✗ (2203) 1.6% | 9 ✗ (100) 9% | 2127 ✓ (967) 100% | 128 ✓ (64) 100% | 1903 ✓ (140672) 1.35% | 236 ✓ (178) 100% | 67 ✓ (50) 100% | 92 ✓ (78) 100% | 16 ✓ (8) 100% | 911 ✓ (729) 100% | 128 ✓ (187) 68.45% | 1020 ✓ (1213) 84% | 10239 8.04% | 148436 4.35% |
| LT | 4 ✓ (3) 100% | 28 ✓ (8) 100% | | 44 ✓ (9) 100% | | | | | 7 ✓ (3) 100% | | 4 ✓ (3) 100% | | | | 7 (4) 100% | 107 0.08% | 33 0% |
| LU | | 20 ✓ (16) 100% | | 2 ✗ (4) 50% | | | | 14 ✗ (750) 1.87% | | | | | | 4 ✓ (1) 100% | | 40 0.03% | 771 0.02% |
| LV | 1 ✓ (1) 100% | 24 ✓ (25) 96% | | | | 1 ✓ (1) 100% | | | 2 ✓ (2) 100% | | 3 ✓ (3) 100% | | | 2 ✓ (2) 100% | 5 ✓ (5) 100% | 119 0.09% | 39 0% |
| MT | | 30 ✗ (305) 9.8% | | | | | | | | | | | | | | 30 0.02% | 305 0.01% |
| NL | 468 ✓ (455) 100% | 1341 ✓ (1372) 97.7% | 239 ✓ (205) 100% | 685 ✓ (678) 100% | | 127 ✓ (56) 100% | 6 ✓ (2) 100% | | 40 ✗ (72) 55.56% | 7 ✗ (13) 53.85% | | | | | | 2913 2.29% | 2853 0.08% |
| PL | 107 ✓ (127) 84% | 151 ✓ (230) 65.65% | | | | 169 ✓ (201) 84.1% | | | 17 ✓ (218) 7.8% | 11 ✓ (178) 6.2% | 80 ✓ (242) 33.1% | 49 ✓ (200) 24.5% | 18 ✓ (18) 100% | 28 ✗ (33) 84.85% | | 630 0.49% | 1447 0.04% |
| PT | 54 ✓ (43) 100% | 95 ✓ (143) 66% | | 1 ✓ (2362) 0.04% | 215 ✓ (12) 100% | 103 ✓ (206) 50% | | 200 ✓ (236296) 0.08% | 15 ✓ (15) 100% | 1 ✓ (1) 100% | | | 87 ✓ (309) 28.2% | 4 ✗ (55) 7.3% | | 775 0.61% | 239553 7.02% |
| RO | 11 ✓ (6) 100% | 936 ✓ (872) 100% | 157 ✓ (166) 94.6% | 374 ✓ (297) 100% | 450 ✓ (438) 100% | 185 ✓ (218) 84.86% | 68 ✓ (69) 98.55% | 83244 ✓ (2015011) 4.1% | 214 ✓ (214) 100% | 109 ✓ (108) 100% | 149 ✓ (148) 100% | 88 ✓ (88) 100% | 58 ✓ (55) 100% | | 13 ✓ (11) 100% | 86056 67.60% | 2017701 59.15% |
| SE | 40 ✗ (53) 75.5% | 42 ✓ (349) 12% | 18 ✓ (86) 21% | 17 ✗ (18) 94% | | 23 ✗ (29) 79.31% | 4 ✓ (4) 100% | | 3 ✓ (3) 100% | | 16 ✗ (22) 72.7% | | 30 ✓ (30) 100% | 10 ✗ (18) 55.5% | | 203 0.16% | 612 0.02% |
| SI | 11 ✓ (11) 100% | 54 ✓ (122) 44.3% | | | | 45 ✗ (57) 78.95% | | | | | | | 9 ✓ (9) 100% | 18 ✗ (22) 81.8% | 12 ✗ (639) 1.88% | 149 0.12% | 860 0.03% |
| SK | 13 ✗ (50) 26% | 65 ✓ (50) 100% | | 155 ✓ (148) 100% | | 13 ✓ (11) 100% | 3 ✗ (4) 75% | 2 ✓ (2) 100% | 8 ✓ (7) 100% | | | 1 ✓ (2) 50% | 44 ✓ (35) 100% | 24 ✓ (17) 100% | 4 ✗ (6) 66.7% | 332 0.26% | 332 0.01% |
| UK | 40 ✗ (376) 10.6% | 52 ✓ (985) 5.3% | 11 ✓ (246) 4.5% | | | 79 ✗ (610) 12.95% | 8 ✗ (31) 25.8% | | 41 ✓ (1761) 2.3% | | 66 ✓ (306) 21.6% | | 25 ✗ (86) 29.1% | 9 ✗ (38) 23.7% | 9 (NK) | 340 0.27% | 4439 0.13% |
| EU Total | 2646 (47962) 2.08% | 8220 (14644) 6.48% | 1334 (3049) 1.02% | 2042 (12716) 1.61% | 833 (5579) 0.66% | 3765 (5851) 2.97% | 409 (625) 0.32% | 99901 (3282043) 78.72% | 2494 (14730) 1.97% | 565 (3762) 0.45% | 760 (1454) 0.60% | 277 (1030) 0.22% | 1927 (13232) 1.52% | 325 (1287) 0.26% | 1414 (5033) 1.11% | 126912 | 3412997 |

ANNEX III ADDITIONAL INFORMATION ON RESULTS OF THE 2007 SURVEY

Annex III Table 1 Prevalence of holdings positive for subtype H5

| MS | Poultry Category | Total Holdings | Total Holdings Sampled | Number of Serological Positive Holdings | Number of PCR/Virological Positive Holdings | Overall Apparent Prevalence (95% CI) | Apparent Virological Prevalence (95% CI) | Comments |
|----|------------------|----------------|------------------------|---|---|--------------------------------------|--|---|
| BE | Backyard Flocks | 45 | 24 | 1 | | 4.2% (13.3%) | - | |
| | Breeder Ducks | 4 | 4 | 2 | | 50% (50%) | - | |
| | Breeder Geese | 3 | 3 | 1 | | 33% (33.3%) | - | |
| | Others | 1 | 1 | 1 | | 100% (100%) | - | |
| | Broilers | 15 | 1 | | 1 | 100% (100%) | 100% (100%) | Broiler holding was virologically and PCR positive, serology was not performed. |
| | Turkey Fatteners | 71 | 57 | | 1 | 1.8% (5.6%) | 1.8% (5.6%) | Turkey fattener holding was virologically and PCR positive, serology was not performed. |
| | Breeder Ducks | 20 | 25 | 4 | | 16% (20%) | - | One holding that was positive twice for H5 in different quarters, counted as one holding positive overall |
| | Breeder Geese | 11 | 15 | 4 | | 26.7% (36.4%) | - | Two holdings sampled and positive twice, and one holding sampled and positive three times - were each counted as one holding |
| DE | Fattening Ducks | NK | 188 | 2 | 2 | 1.1% (3.3%) | 1.1% (3.3%) | Two holdings positive overall, both were serologically positive and PCR positive, one was virology positive and the other was virology negative. |
| | Fattening Geese | NK | 115 | 1 | | 0.87% (4.1%) | - | |
| DK | Breeder Ducks | 11 | 13 | 5 | | 38.5% (45.5%) | - | |
| | Breeder Geese | 10 | 13 | 4 | | 30.8% (40%) | - | |
| ES | Laying Hens | 975 | 458 | 1 | | 0.22% (0.8%) | - | |
| | Fattening Ducks | 74 | 40 | 3 | 3 | 15% (24.3%) | 7.5% (14.9%) | Three holdings were positive by serology only. Another three holdings were PCR positive, but seronegative. One holding was PCR positive for both H5 and H7. |
| | Others | 3151 | 316 | 2 | | 0.63% (1.9%) | - | One holding tested and positive twice for H7 and once for H5. |

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| MS | Poultry Category | Total Holdings | Total Holdings Sampled | Number of Serological Positive Holdings | Number of PCR/Virological Positive Holdings | Overall Apparent Prevalence (95% CI) | Apparent Virological Prevalence (95% CI) | Comments |
|-------|------------------|----------------|------------------------|---|---|--------------------------------------|--|--|
| | | | | | | | | |
| | | | | | | | | |
| FI | Fattening Geese | 3 | 3 | 1 | | 33.3% (33.3%) | | |
| | Fattening Ducks | 10989 | 170 | 2 | | 1.18% (3.6%) | - | |
| | Game Birds | 10989 | 124 | 1 | | 0.81% (3.8%) | - | |
| FR | Breeder Ducks | 3354 | 305 | 30 | | 9.84% (13.00%) | - | |
| | Breeder Geese | 669 | 61 | 16 | | 26.2% (36.6%) | - | |
| | Backyard Flocks | 140672 | 1903 | 1 | | 0.05% (0.3%) | - | |
| IT | Breeder Geese | 8 | 16 | | 1 | 6.25% (12.5%) | 6.25% (12.5%) | This breeder geese holding was virology positive with serology and PCR not performed. |
| PL | Breeder Geese | 200 | 49 | 2 | | 4.08% (11.5%) | - | |
| | Broilers | 2362 | 1 | | 1 | 100% (100%) | 100% (100%) | This holding was sampled in a restriction zone, it was not a random sample. This holding was virologically and PCR positive, serology was not performed. |
| PT | Game Birds | 309 | 87 | | 3 | 3.45% (7.76%) | 3.45% (7.76%) | These holdings were positive by PCR and virology, serology was not performed |
| RO | Backyard Flocks | 2015011 | 83244 | 1 | 1 | 0.001% (0%) | 0.001% (0%) | |
| SE | Game Birds | 30 | 30 | 3 | | 10% (10%) | - | Three holdings (all Mallards) positive overall- but positive for both H5 and H7 |
| | Fattening Ducks | 1761 | 41 | 1 | | 2.44% (11%) | - | |
| UK | Fattening Geese | 306 | 66 | 7 | | 10.6% (18%) | - | |
| | Game Birds | 86 | 25 | 1 | | 4% (15.1%) | - | |
| Total | | 2191137 | 87395 | 97 | 13 | | | |

| Annex III Table 2 Prevalence of holdings positive for Subtype H7 | | | | | | | | |
|--|------------------------|----------------|------------------------|---|---|--------------------------------------|--|----------|
| Member State | Poultry Category | Total Holdings | Total Holdings Sampled | Number of Serological Positive Holdings | Number of Virological Positive Holdings | Overall Apparent Prevalence (95% CI) | Apparent Virological Prevalence (95% CI) | Comments |
| | | | | | | | | |
| | Free Range Laying Hens | 97 | 84 | 1 | | 1.2% (3.09%) | - | |
| DK | Free Range Laying Hens | 127 | 341 | 1 | | 0.29% (0.8%) | - | |
| ES | Fattening Ducks | 74 | 40 | 0 | 1 | 2.5% (9.5%) | 2.5% (9.5%) | |
| | Others | 3151 | 316 | 2 | | 0.63% (1.9%) | - | |
| FR | Breeder Geese | 669 | 61 | 1 | | 1.64% (7.2%) | - | |
| IT | Laying Hens | 1406 | 2567 | 5 | | 0.19% (0.4%) | - | |
| | Turkey Fatteners | 967 | 2127 | 5 | 4 | 0.28% (0.94%) | 0.19% (0.80%) | |
| | Backyard Flocks | 140672 | 1903 | 4 | 1 | 0.21% (0.5%) | 0.05% (0.25%) | |
| | Game Birds | 729 | 911 | | 1 | 0.11% (0.14%) | 0.11% (0.14%) | |
| | Others | 1213 | 1020 | 7 | 5 | 0.69% (0.99) | 0.49% (0.66%) | |
| SE | Game Birds | 30 | 30 | 3 | | 10% (10%) | - | |
| UK | Fattening Ducks | 1761 | 41 | 1 | | 2.4% (11%) | - | |
| Total | | 151227 | 9744 | 31 | 12 | | | |

| Annex III Table 3 Number of holdings positive for subtype H5 by serology, serology and PCR/virology or PCR/virology only | | | | |
|---|------------------|--|---|---|
| Member State | Poultry Category | Number Serologically Positive only, PCR/Virology negative or not performed | Number Serologically Positive and PCR/Viro positive | Number PCR/Virologically Positive, Serology negative or not performed |
| BE | Backyard Flocks | 1 | | |
| | Breeder Ducks | 2 | | |
| | Breeder Geese | 1 | | |
| | Others | 1 | | |
| | Broilers | | | 1 |
| | Turkey Fatteners | | | 1 |
| | | | | |
| CZ | Breeder Ducks | 4 | | |
| | Breeder Geese | 4 | | |
| DE | Fattening Ducks | | 2 | |
| | Fattening Geese | 1 | | |
| DK | Breeder Ducks | 5 | | |
| | Breeder Geese | 4 | | |
| ES | Laying Hens | 1 | | |
| | Fattening Ducks | 3 | | 3 |
| | Others | 2 | | |
| FI | Fattening Geese | 1 | | |
| FR | Fattening Ducks | 2 | | |
| | Breeder Ducks | 30 | | |
| | Breeder Geese | 16 | | |
| | Game Birds | 1 | | |
| IT | Backyard Flocks | 1 | | |
| | Breeder Geese | | | 1 |
| PL | Breeder Geese | 2 | | |
| PT | Broilers | | | 1 |
| | Game Birds | | | 3 |
| RO | Backyard Flocks | | 1 | |
| SE | Game Birds | 3 | | |
| UK | Fattening Ducks | 1 | | |
| | Fattening Geese | 7 | | |
| | Game Birds | 1 | | |
| Total | | 94 | 3 | 10 |

| Annex III Table 4 Number of holdings positive for subtype H7 by serology, serology and PCR/virology or PCR/virology only | | | | |
|---|------------------------|--|---|---|
| Member State | Poultry Category | Number Serologically Positive only, PCR/Virology negative or not performed | Number Serologically Positive and PCR/Viro positive | Number PCR/Virologically Positive, Serology negative or not performed |
| BE | Laying Hens | 1 | | |
| | Free Range Laying Hens | 1 | | |
| DK | Free Range Laying Hens | 1 | | |
| ES | Fattening Ducks | | | 1 |
| | Others | 2 | | |
| FR | Breeder Geese | 1 | | |
| IT | Laying Hens | 5 | | |
| | Turkey Fatteners | 2 | 3 | 1 |
| | Backyard Flocks | 3 | 1 | |
| | Game Birds | | | 1 |
| | Others | 4 | 3 | 2 |
| SE | Game Birds | 3 | | |
| UK | Fattening Ducks | 1 | | |
| Total | | 24 | 7 | 5 |

ANNEX IV DESCRIPTIVE RESULTS OF THE 2007 POULTRY SURVEY BY POULTRY CATEGORY

Detailed tables displaying the number of holdings, holdings sampled and holdings positive by Member States and category are shown in Annex 1.

Ducks and Geese:

- Overall Duck and Geese holdings made up 3.2% (15.2% with backyard flocks total sample number excluded) of the total holdings sampled.
- Fattening ducks were sampled in all but five MS, two more than in the previous year (for ducks and geese category), the sample sizes varied from one (EL, IE and LV) to 1,348 (BG).
- Breeder ducks were sampled in fewer MS than fattening ducks (12 out of the 27 Member States). The sample sizes varied from one (FI and PT) to 306 (FR).
- Fattening geese were sampled in less than half (13) of the MS, with the sample sizes varying from three (ES, FI and LV) to 194 (HU).
- Eleven MS sampled Breeder geese. The sample sizes varied from one (FI and SK) to 88 (RO).
- HU and IT increased the number of ducks and geese holdings in their surveillance programmes. Many MS sampled holding numbers in excess of the requirements (BG, DE, FR, HU, IT, PL, and RO) and frequently a large proportion of the reported total holdings were sampled (Mean: 65.9%; Median: 100%; Mode: 100; Range: 1.55%- 100%).
- With the exception of the EE, IE, PT, RO and SE, all MS that found any positive holdings also found positive holdings in ducks and geese. In four MS (FI, PL, SK and BG) this was the only category of poultry where positives were found.
- More than half (66%) of the total number of H5/H7 AI positive holdings were duck and geese holdings (91 out of 138), the large majority of these positive holdings showed antibodies to the H5 subtype (as in 2006).
- Across the EU the sample prevalence in ducks and geese for H5 has remained largely the same: 2004 (2.5%), 2005 (3.5%), 2.6% in 2006 and 2.2% in 2007. However, variation at MS level occurred and some MS noted increases in the sample prevalence compared to 2006 (BE, CZ, DK, ES and UK).

Chicken breeders

- This category of poultry was sampled by 22 MS (compared to 19 MS in 2006), in similar numbers to previous years. EE, HU, and LV sampled this category for the first time in 2007.
- Frequently a large proportion of the reported total number of holdings was sampled (Mean: 75.7%; Median: 100%; Mode: 100; Range: 0.02%- 100%). Overall chicken breeder holdings made up 2.08% (9.8% with backyard flocks excluded) of the total holdings sampled. After exclusion of the new large number of backyard flocks, the

chicken breeder holdings made up a larger percentage of the EU total sampled than in 2006.

- This year no holdings tested positive for subtypes H5 or H7 out of an EU total of 2,646 tested.
- In 2006 one positive chicken breeder holding was found in the Netherlands (for subtype H7). In 2005 three holdings were found positive in Belgium (two H5 and one H7) out of an EU total of 2,489 tested holdings in 2005, and no positive chicken breeder holdings were found amongst 2,146 tested in 2004.

Laying hens and Free Range laying hens

- This year, the laying hens category was split into laying hens and free range laying hens.
- Layer flocks were sampled by all MS and 13 MS sampled free-range laying hens. It appears that frequently a large proportion of the total holdings were sampled and several MS sampled well in excess of the required sample sizes. Laying hen holdings accounted for 6.48% (30.4% with backyard flocks excluded) of the sampled holdings in 2007, and free-range laying hen holdings 1.05% (4.9% with backyard flocks total sample number excluded).
- Compared to the previous year, NL sampled a quarter of holdings of this category, however, in IT and HU the number of sampled holdings more than doubled.
- A total of seven laying hens and two free-range laying hens holdings out of 9,554 sampled were positive for H5/H7 subtypes in this year's survey (0.09%) this is lower than the prevalence observed in 2006 (0.3%). However if all positives reported are included, a total of 16 laying hens and four free-range laying hens holdings out of 9,554 were positive, and this is a prevalence of 0.2% which is similar to that in 2006.
- Positive holdings were found in seven MS (BE, DE, DK, EE, ES, IE and IT) and in three of these (EE, IE and IT), AI was not found in laying hens in the previous years.

Broilers and Free range broilers

- Seven more MS (18) sampled broilers, including free-range broilers in their survey programme than in 2006 and consequently there was an overall increase of around 500 broiler holdings sampled compared to 2006 and 2005.
- Often these holdings were sampled in low numbers and formed a comparatively low proportion of the total holdings, however, unlike in 2006 and 2005, two positive holdings were detected, and these were not free-range. One holding was found in CZ and one in PT, and both holdings were positive for the H5 subtype.
- In the 2005 and 2006 surveys, no broiler holdings were positive for AI. In 2004 four positive holdings were detected, two H7 positive holdings in IT and two holdings positive for subtypes other than H5 or H7 in EL.

Turkey Fatteners

- This category was sampled in almost all MS (23). The overall number of holdings sampled was almost double that of the previous year and in IT the number of sampled holdings of this category increased considerably (2,127 holdings). For IT in particular, it appears that all holdings were sampled more than once.

- As in previous years, fewer than 0.5% of holdings were positive for AI.
- Unlike in 2006, the CZ and IT found positive holdings in this category in this year's survey- with one holding positive in the CZ and six found positive in IT. IT had not detected positives in this category since 2004, where several positive turkey fattener holdings were detected due to an outbreak of H7N3, whilst the CZ had not found any turkey fattener positive holdings in the previous surveys.
- In last year's survey, as in 2005 and 2004, FR found positive holdings in this category (one subtype H5, and two influenza A virus not H5 or H7) and DE also detected one positive holding with a subtype other than H5 or H7 in 2006.

Turkey breeders

- Turkey breeders were sampled in 16 MS, which was six more than last year.
- No positive holdings were found in this category. In the previous survey in 2006, FR had eight out of 53 holdings tested positive for subtypes other than H5 or H7, whilst in 2005, no positive holdings of this type were detected. In the 2004 survey FR detected three out of 82 sampled holdings positive for influenza A virus other than H5 or H7.

Backyard flocks

- Five MS that had not previously included backyard flocks in their surveillance did include them this year, as did BG and RO who did not carry out the survey in previous years. This is in addition to eight out of the nine MS that surveyed this type of poultry in the previous survey. Thus, in total 15 MS sampled backyard flocks.
- More than three-quarters of the total number of holdings sampled in 2007 were backyard flocks, which is more than double the proportion in 2006. In particular BG, ES, HU, IT and RO sampled a large number of backyard holdings. RO accounted for the great majority (83%) of the total backyard flocks sampled.
- Positives were detected five Member States, BE, DE, ES, IT and RO in this year's survey, compared to two (DE and ES) in 2006. In three of these countries the positives were subtype H5/H7. In RO, despite the relatively large number of holdings sampled, only one positive holding was detected, this was positive for subtype H5.
- ES detected many more positive holdings than in the previous year, with 24 out of 3,480 holdings positive for subtype other than H5 or H7, compared to two out of 3,514 backyard flocks tested positive for the H5 subtype in 2006. In DE, there were eight positive holdings out of 220 compared to ten positive holdings out of 78 tested holdings in the previous year- these were positive for subtypes other than H5 or H7.
- At EU level the sample prevalence in backyards flocks was very low and stayed below 0.5%.

Game birds

- Holdings in this category were included in the survey by 21 MS, an increase of three from last year's survey. RO and BG who did not carry out the survey in previous years sampled this category, and EE, IE and SE were MS that included this category for this year's survey but did not for 2006. LV and LT did not include this category in this year's survey whereas they had done so in 2006.

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- As with the 2006 survey, a relatively large proportion of the reported total holdings were collected (Mean: 70.6%; Median: 93%; Mode: 100; Range: 1.1%- 100%), with 15 MS sampling over 50% of their total holdings.
- The total number of game bird holdings that were sampled in 2007 was 1,927, just over 400 more than in 2006. This reflects a continuous increase in the sampling of this category since 2005.
- While the overall EU sample prevalence for H5/H7 was quite low (0.8%), amongst those MS that did find H5/H7 positives the sample prevalence ranged from between 0.11 and 10% (the sample prevalence for all positives in this category ranged from between 0.11-100%).
- Overall there was slight decrease in the sample prevalence in game bird holdings at the EU level between 2006 and 2007, but it was not a considerable change.

Ratites

- As in 2006, this category was sampled in 18 MS. HU included this category in 2007, whereas they did not sample ratites in 2006, and BG who did not carry out the 2006 survey also sampled this category. FR who had sampled this category in the previous year's survey did not do so in 2007.
- In most MS where the total number of holdings was known, this was below 50, only DE, ES and IT reported greater than 50 total holdings present. Relatively frequently a large proportion of holdings were sampled (Mean: 57.5%; Median: 63%; Mode: 100; Range: 2.25%- 100%).
- No positive ratite holdings were found in this year's survey, unlike in 2006 when two H5 positive ratite holdings out of 89 tested were found in ES. In addition, positive holdings were also found in this category in the 2005 and 2004. In 2005 one positive holding was found in DE, whilst in 2004, ES detected two positive holdings and IT detected one positive holding in this category.

Others

- More MS reported sampled holdings from this category and types of poultry reported in this category included pigeons, zoo birds, ornamental birds and Passeriformes.
- Some of the "other" category holdings sampled in FR were described as breeder palmipeds, and the positives were described as either breeder ducks or breeder geese. These were put into the most appropriate category of either breeder ducks or geese, according to the estimate provided.