

8. *Yersinia*

8.1. *Yersinia* in animals

The disease is not notifiable in animals in any of the reporting countries. In Denmark, the occurrence of *Yersinia* (*Y.*) in pigs is monitored as part of the monitoring programme for the occurrence of antimicrobial resistance in zoonotic bacteria. From time to time specific surveys were performed in some reporting countries. In Great Britain, an abattoir survey was undertaken to determine the annual faecal carriage of *Yersinia enterocolitica* in cattle, sheep and pigs intended for human consumption. The samples were collected proportional to abattoir throughput and evenly distributed over the year. Most of the data reported in 2003 are based on investigations due to clinical reasons. In addition, some data is based on follow-up investigations of animals which tested positive in the surveillance programme in regard to brucellosis in cattle.

In 2003, a total of 63 (13 %) of 493 examined pigs were found positive for *Y. enterocolitica* in Denmark. All of the obtained isolates were serotype O:3.

Within the abattoir survey in Great Britain, 13,4% of 2112 pigs, 4,5% of 672 cattle and 8,0% of 715 sheep were positive for *Y. enterocolitica*.

In Italy, within a survey run in 2003, no *Y. enterocolitica* were detected in poultry but 10 (13,3%) of 75 cattle, 2 (39%) of 51 pigs, 146 (65%) of 225 sheep were positive for *Y. enterocolitica*. In addition, *Y. enterocolitica* was isolated from 2 dogs and 1 cat.

In contrast to these results, a considerable number of animals has been tested in Portugal but no or very few *Y. enterocolitica* were isolated from poultry, cattle, pigs, sheep, goats and other animals.

Within the new Member States, 6 out of 38 cattle were positive in Lithuania, all other animals tested in Latvia or Lithuania were negative.

The results of examination for *Yersinia* in animals are given in the Tables AN – 8.1.1. and AN – 8.1.2 in the Annex.

8.2. *Yersinia* in food

No official surveillance programmes are implemented for *Y. enterocolitica* in food. Surveys are run from time to time on specific questions. No specific surveys were run in 2003. As in 2002, five countries (Austria, Germany, Greece, Italy and Spain) reported on the *Yersinia* situation in food. Most *Y. enterocolitica* isolates were reported in pork and pork products at retail. In other types of food, only single positive findings were reported in 2003.

Within the New Member States, no positive findings were reported within milk products tested in Slovenia.

For more details see Table AN - 8.2 in the Annex.

8.3. Yersiniosis in humans

Yersiniosis is notifiable in Norway and Sweden. In Sweden laboratory confirmed cases and cases reported by physicians are collected separately. In Norway, the physician and the microbiological laboratories are required to notify cases of yersiniosis. On central level, the information collected by the clinician is linked to the laboratory report in one database. In Finland, the laboratories are required to notify positive findings. Other laboratory-based systems exist in Belgium, Spain and the United Kingdom. In The Netherlands the surveillance system was stopped in 1997.

The case definition applied is that of a culture confirmed case with clinical symptoms.

Altogether, 9399 human cases of yersiniosis were reported in the European Union (figures from 10 countries) and Norway (Table YE 1). This is a clear decrease compared to the previous year, if figures are compared from those countries, where data are available for both years. In Sweden, again an increase in number of cases was observed, whereas in the other countries a stable situation or slightly lower numbers were reported. The increase observed in Sweden was almost exclusively observed during the summer months June to August.

In Scotland, more cases were detected due to a change in the screening protocol in one Health Board. There, 59 cases in 2003 compared with 15 cases in 2002 were identified.

The overall trend for the last 5 years is decreasing in the 9 countries which provided that information each year (Figure YE 1). This might be attributable to improvements in the slaughter hygiene.

In Denmark and Germany, most of the infections were acquired within the country. In Sweden, 83 % of the cases were of domestic origin, whereas in Norway about 38% were known indigenous cases during 2003.

Swine and pork products are considered as important sources for *Y. enterocolitica*. But there remain still uncertainties regarding the epidemiology of the human infections which need further investigation.

As in the previous years, in Denmark, Germany, France, Spain and Norway, the majority of isolates were serotype 0:3.

In Denmark, a cluster of patients was identified in August. A case control study found a specific butcher shop to be associated with disease and furthermore implicated consumption of sausages and ground pork.

New Member States

Two New Member States provided on a voluntary basis the number of human yersiniosis cases registered in the country. 28 cases in Latvia and 273 cases in Lithuania were notified. The age distribution and seasonal pattern is given in Figures YE 2 and 3.

Figure YE 1. Trend in human yersiniosis

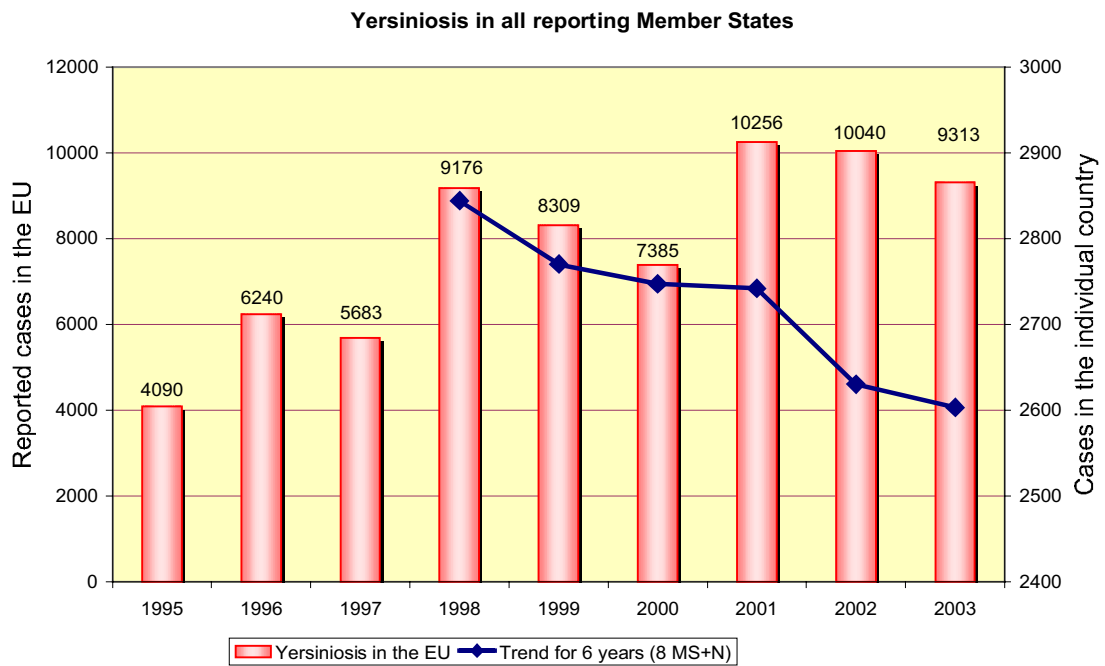


Table YE 1. Human yersiniosis

	1997	1998	1999	2000	2001	2002	2003
Austria	70	94	90	119	116	58	58
Belgium	477	440	571	485	375	330	338
Denmark	430	464	339	265	286	240	243
Finland	704	713	634	641	728	695	646
France	-	-	310	-	391	-	218
Germany ¹	3337 ²	6447 ³	5321 ⁴	4778 ⁴	7186 ⁵	7515	6571
Greece	-	25	-	-	48	-	1
Ireland	8	7	-	14	3	12	6
Luxembourg	-	-	33	-	11	-	-
Portugal	-	-	-	-	1	-	6
Spain ⁵	373	309	412	463	526	528	417
Sweden	558	558	478	554	519	610	714
Scotland	25	41	16	16	19	15	59
Northern Ireland	13	9	17	7	18	7	4
England and Wales	166	71	88	43	29	28	32
Norway	108	140	125	140	123	107	86

- No information available

¹ Notifiable only in some Länder

² Data related to 7 Federal Länder

³ Data related to 10 Federal Länder

⁴ Data related to 11 Federal Länder

⁵ New act (Infektionsschutzgesetz (IfSG)) since 1.1.2001, cases from all 16 Federal Länder, new case definition

⁶ Data based on Microbiological Information System

Age distribution

10 countries provided information on the age distribution of yersiniosis (Figure YE 2). Besides France the cases were broken down by gender. The distribution of the incidence rates follows two patterns. In most of the countries *Yersinia* mainly affects young children up to the age of 4 years. The incidence rate in the other age groups is noticeable lower. The incidence rates in the age groups are more equally distributed in Finland, Ireland, England, Wales and Scotland.

Figure YE 2. Incidence rate per 100 000 inhabitants of yersiniosis in different age groups

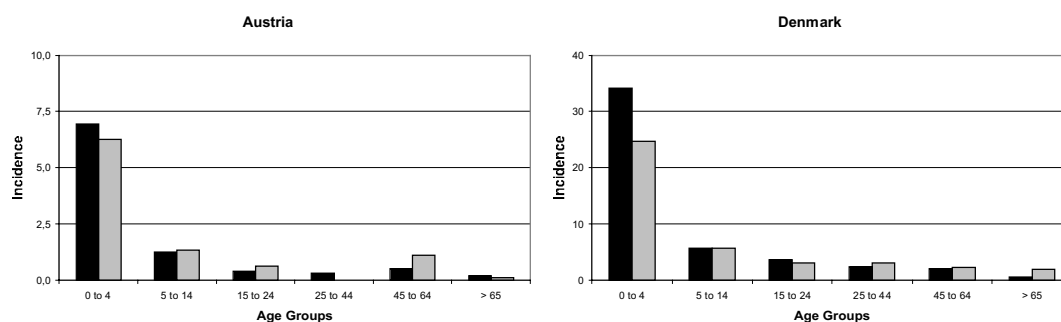
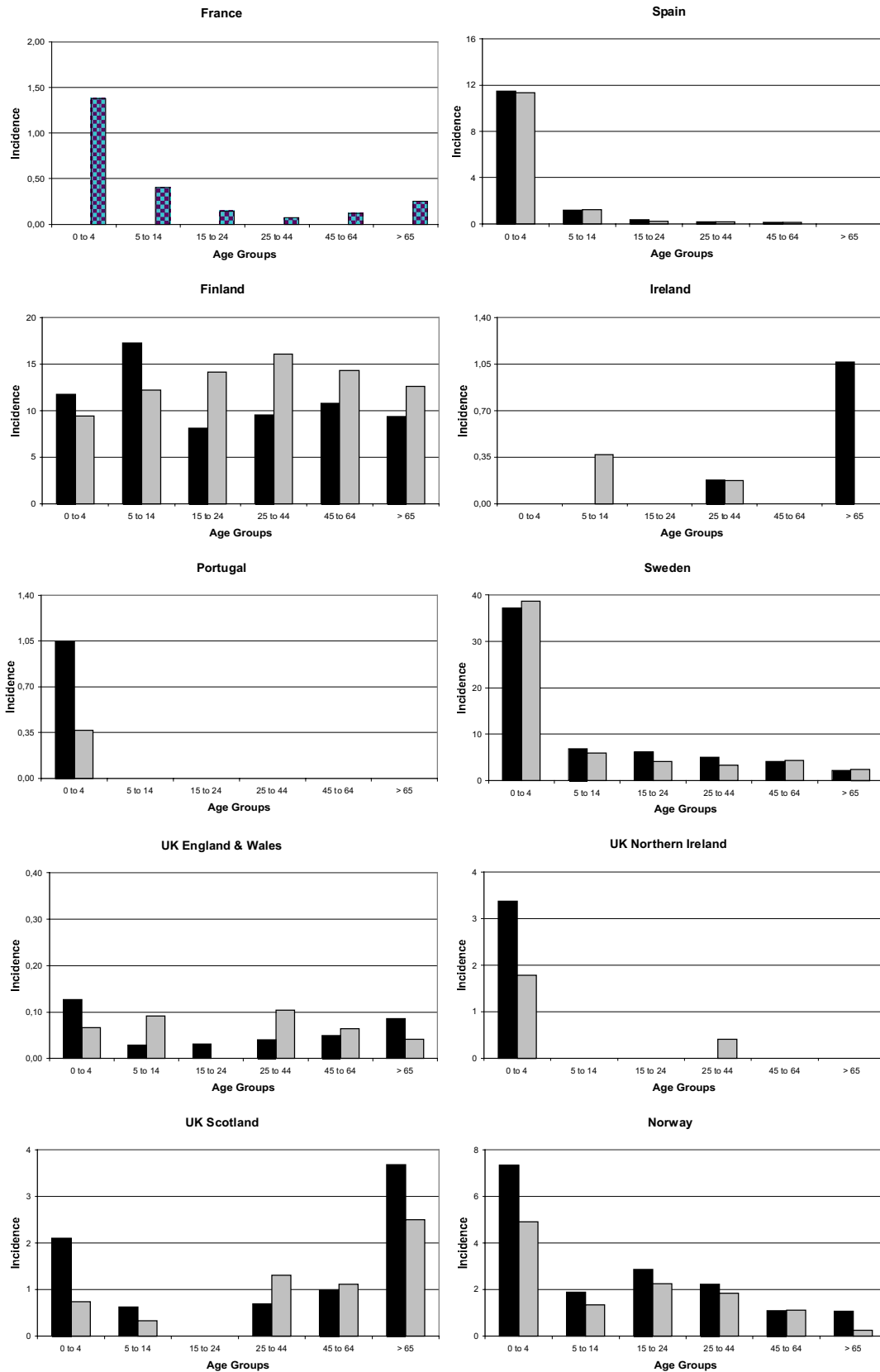
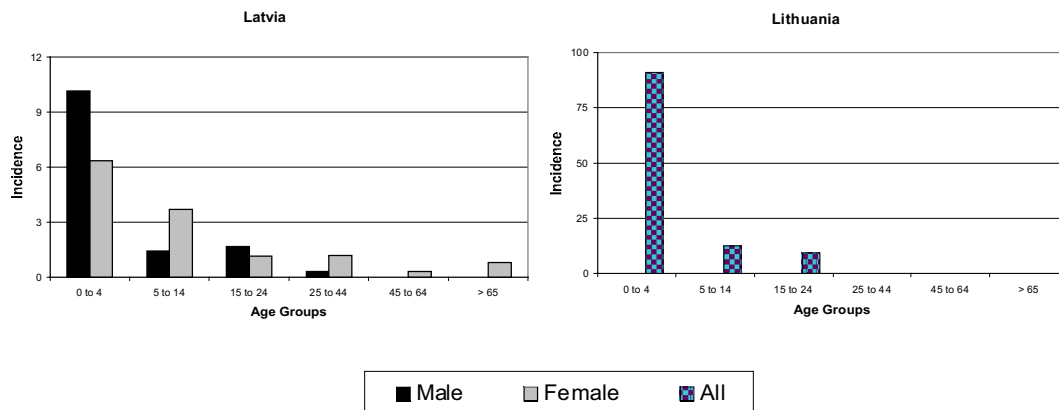


Figure YE 2. Incidence rate per 100 000 inhabitants of yersiniosis in different age groups - continued



**Figure YE 2. Incidence rate per 100 000 inhabitants of yersiniosis in different age groups - continued
New Member States**



Seasonal distribution

12 countries provided a monthly notification of the cases. The pattern over the last five years is depicted in Figure YE 3. It is obvious, that the cases are spread over the year.

Figure YE 3. Distribution of the yersiniosis cases over the year

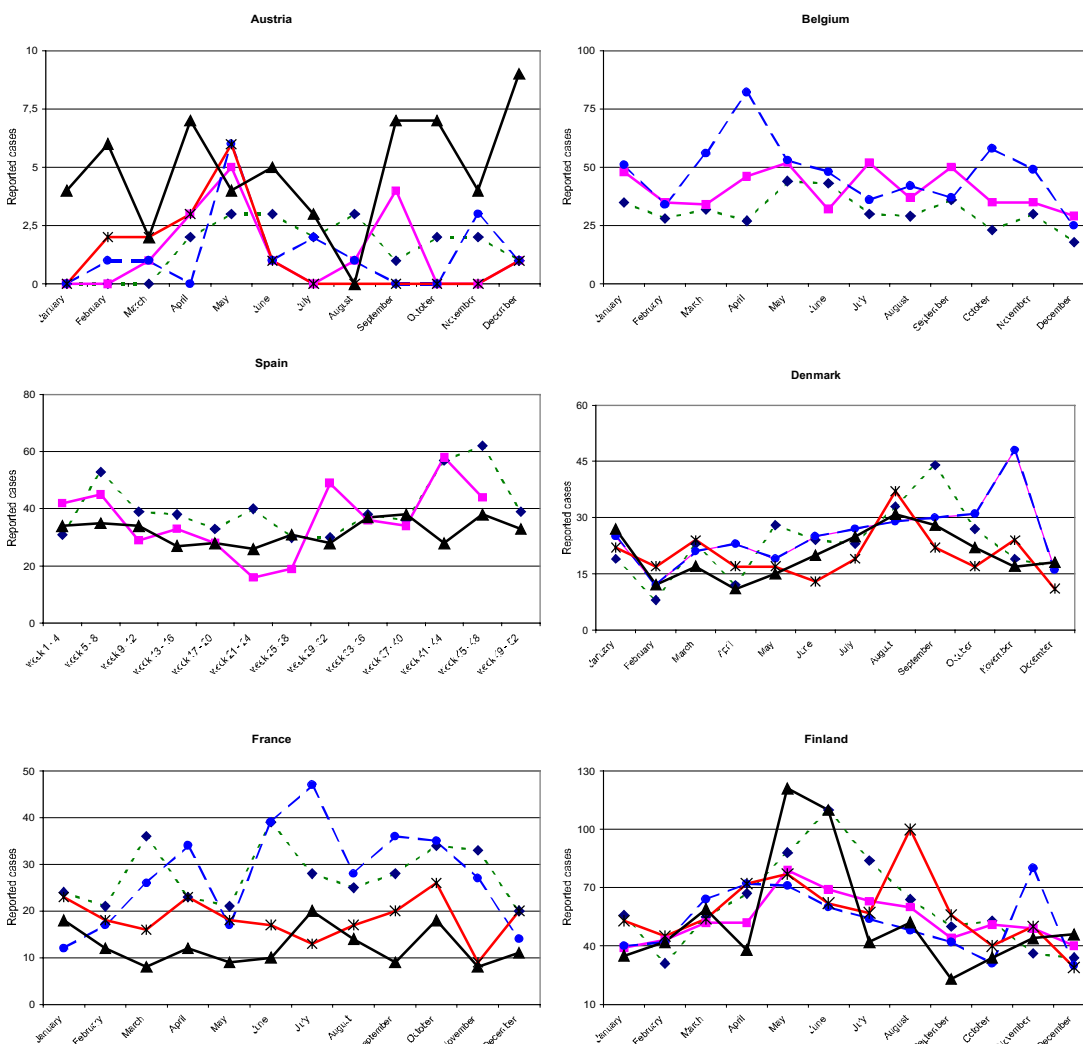


Figure YE 3. Distribution of the yersiniosis cases over the year - continued

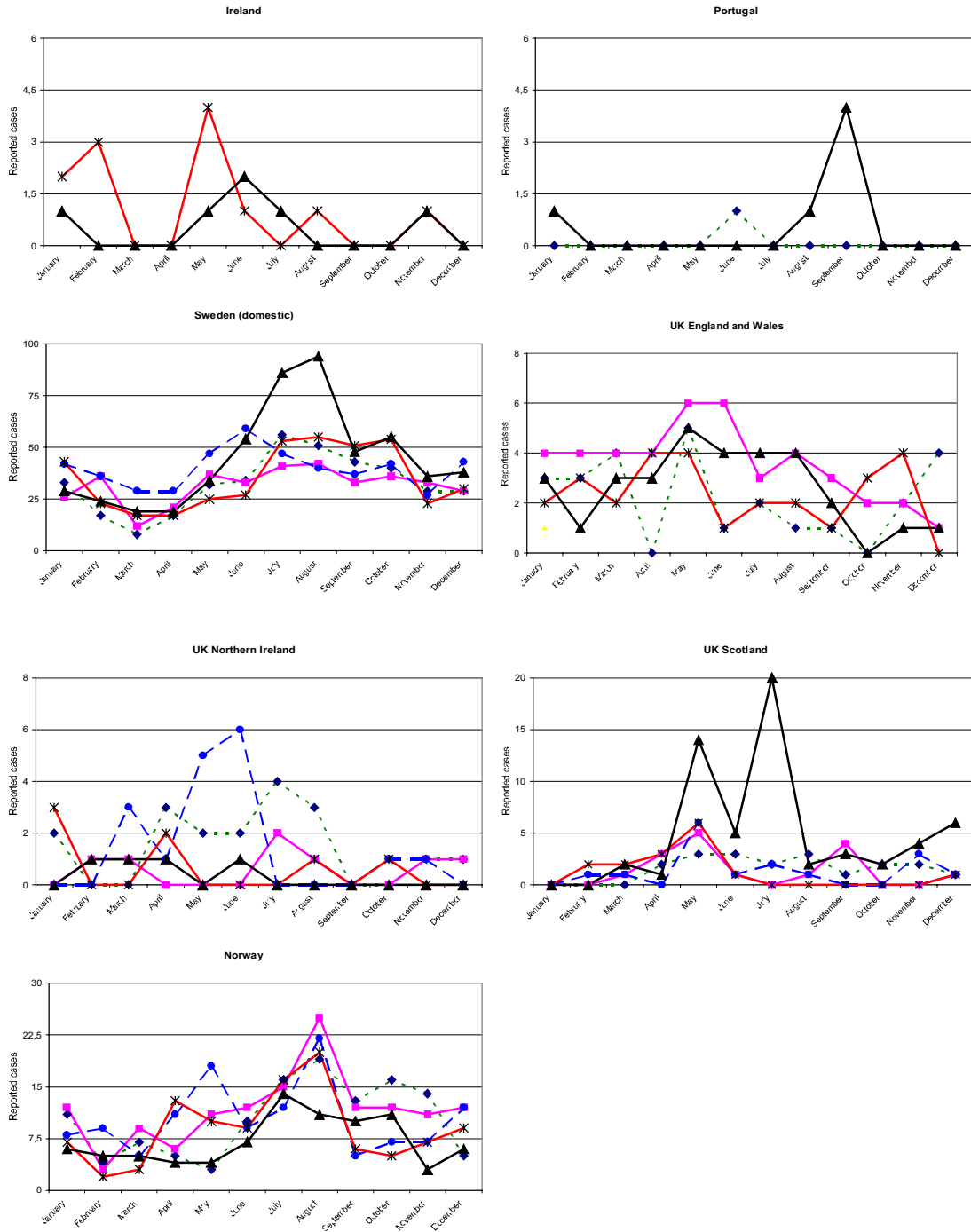


Figure YE 3. Distribution of the yersiniosis cases over the year - continued

New Member States

