

# European Emergency Department Crowding Study

EEDCS consortium

October 23, 2025

## Abstract

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## 1 Introduction

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## 2 Materials and methods

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## 3 Results

### 3.1 Respondents

Table 1: Repondent positions

country	Head	Other	Resident	Specialist	Trainee
Albania	3	0	0	4	0
Austria	1	0	0	3	0
Belgium	1	0	0	0	0
Croatia	4	0	4	8	0
Denmark	1	0	3	10	0
Estonia	3	1	0	5	0
Finland	7	1	3	3	0
France	3	0	1	11	0
Germany	20	3	0	5	1
Greece	4	0	3	5	0
Hungary	7	0	1	3	0
Iceland	1	0	0	4	0
Ireland	1	0	1	5	1
Italy	8	3	0	9	0
Lithuania	0	0	0	1	0
Malta	0	0	0	7	1
Netherlands	0	0	0	6	0
Norway	3	0	0	1	0
Poland	8	1	3	4	0
Romania	3	0	0	2	0
Slovenia	2	0	1	1	0
Spain	3	1	0	9	0
Sweden	2	1	0	7	0
Switzerland	1	0	0	0	0
Turkey	0	6	16	14	3
United Kingdom	5	14	29	36	8

Table 2: Hospital types

country	other	primary	secondary	specialized	tertiary
Albania	0	1	3	0	3
Austria	0	0	0	0	4
Belgium	0	0	0	0	1
Croatia	0	2	1	0	13
Denmark	0	0	8	0	6
Estonia	0	2	2	0	5
Finland	0	0	8	0	6
France	0	3	1	1	10
Germany	0	0	8	0	21
Greece	0	0	2	0	10
Hungary	1	0	5	0	5
Iceland	0	1	0	0	4
Ireland	1	0	2	0	5
Italy	0	3	4	2	11
Lithuania	0	0	0	0	1
Malta	0	1	1	0	6
Netherlands	0	0	4	0	2
Norway	0	0	3	0	1
Poland	1	0	6	0	9
Romania	0	0	1	0	4
Slovenia	0	0	1	0	3
Spain	0	3	2	1	7
Sweden	1	2	2	0	5
Switzerland	0	0	0	0	1
Turkey	1	0	4	2	32
United Kingdom	2	5	49	3	33

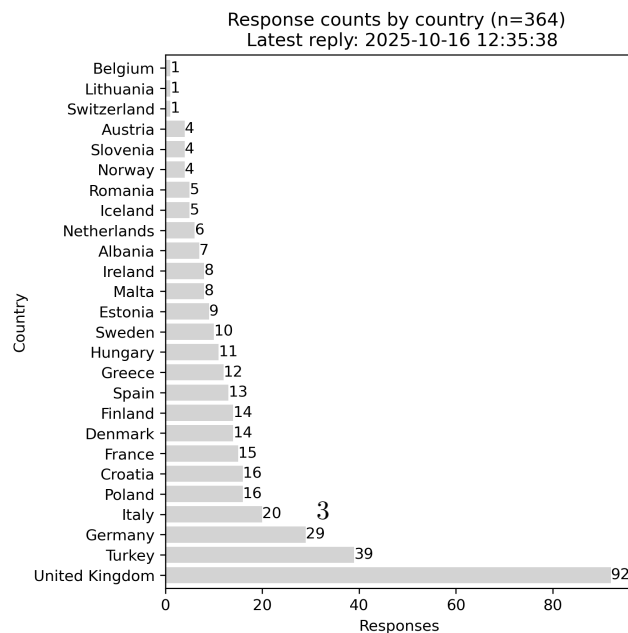


Figure 1: countryfreqs

## 3.2 Causes

Presentations with more urgent and complex care needs	3	10	19	41	27
Unpredictable fluctuations in the number of patients at weekends or during holidays	4	16	25	35	21
Seasonal epidemiology: seasonal illness, influenza epidemics, heat waves etc.	1	4	17	39	39
High volume of low-acuity presentations (LAPs)	1	13	25	30	30
High volume of high-acuity presentations (HAPs)	2	17	33	28	20
Shortness of support services for older people to help them cope at home	2	6	15	38	39
Limited access to primary care, including non-office time	1	10	13	35	41
The malfunctioning of health care services in the community, e.g. limited access to diagnostics services	5	12	17	32	34
High number of non-urgent visits caused by 'frequent fliers'	9	25	26	22	18
The number of escorting relatives or friend accompanying a patient	25	26	19	19	12
High number of referrals from general practitioners	4	23	32	29	13
High number of referrals from occupational health	42	27	19	9	4
High number of referrals from telehealth	45	27	14	10	3
Insufficient amount of EDs within catchment area	25	23	19	19	13
Architecture of the ED: Inadequate physical capacity of the ED relative to the demand	5	13	19	33	30
Permanently low number of registered nurses	8	18	23	27	25
Permanently low number of physicians	7	19	22	29	23
Permanently low number of auxiliary staff	9	20	28	25	18
Permanently low number of specialist physicians	9	18	26	26	20
Delays delivery of laboratory results (including EEG)	10	30	20	26	15
Delayed delivery of radiology results (X-ray, CT, ultrasound, etc.)	5	25	25	24	21
Too long consultation times of hospital specialists	3	18	20	30	29
Delayed disposition decisions in the ED about when patients will be transferred to ward or elsewhere	3	13	22	30	31
Bed availability in the ED or in the ED-led reassessment/observation unit	4	12	13	27	45
Organisational culture of hospital or other wards: delays between request for a bed and that being made available	1	7	13	28	51
The need of negotiations with non-ED personnell (physicians, nurses, etc) before the patients are permitted to be transferred to the ward	3	12	20	32	33
Shortage of transfer capacity inside or/and outside the hospital (including ambulance and non-urgent patient transports)	5	16	29	28	23
Permanently low number of follow-up care beds in primary care	5	14	17	29	34
Permanently low number of follow-up care beds in secondary care	4	11	17	32	35
Permanently low number of follow-up care beds in tertiary care	5	15	21	27	32
	Unimportant				
	Slightly important				
	Moderately important				
	Important				
	Very important				

Figure 2: causes

### 3.3 Operations management

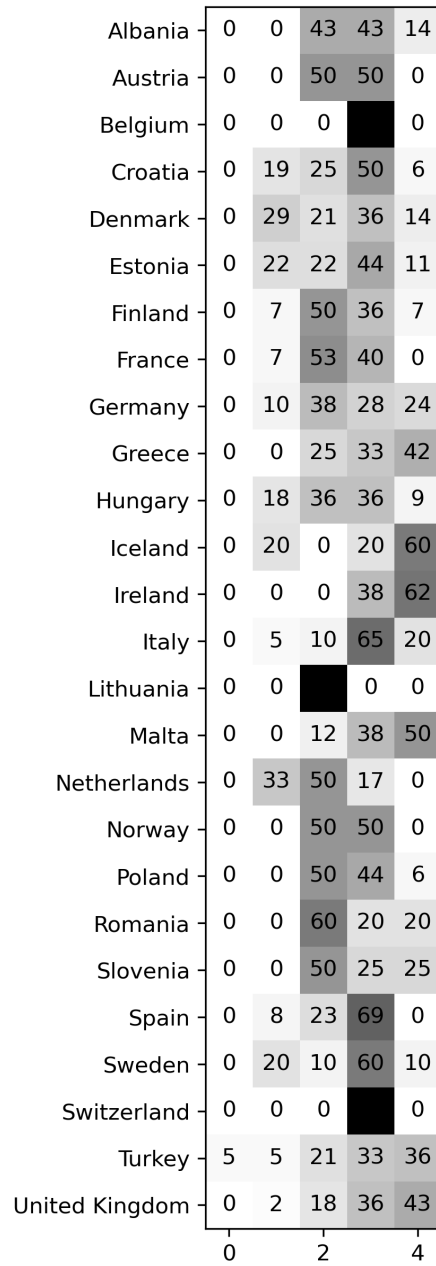


Figure 3: severity

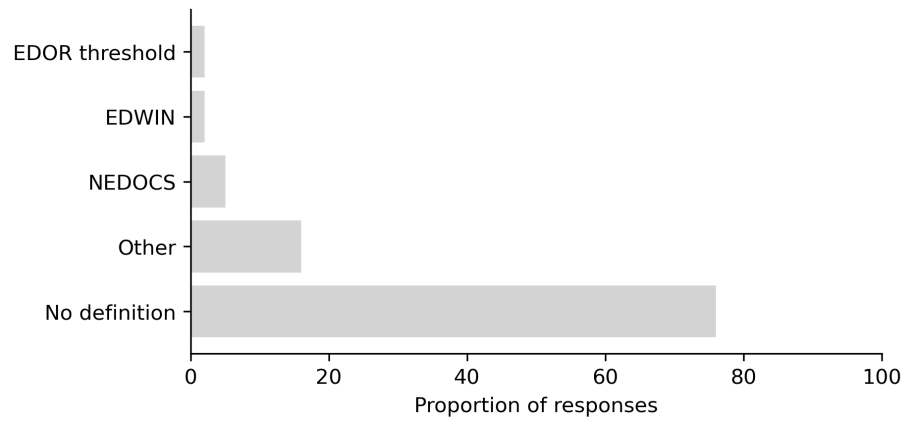


Figure 4: definition

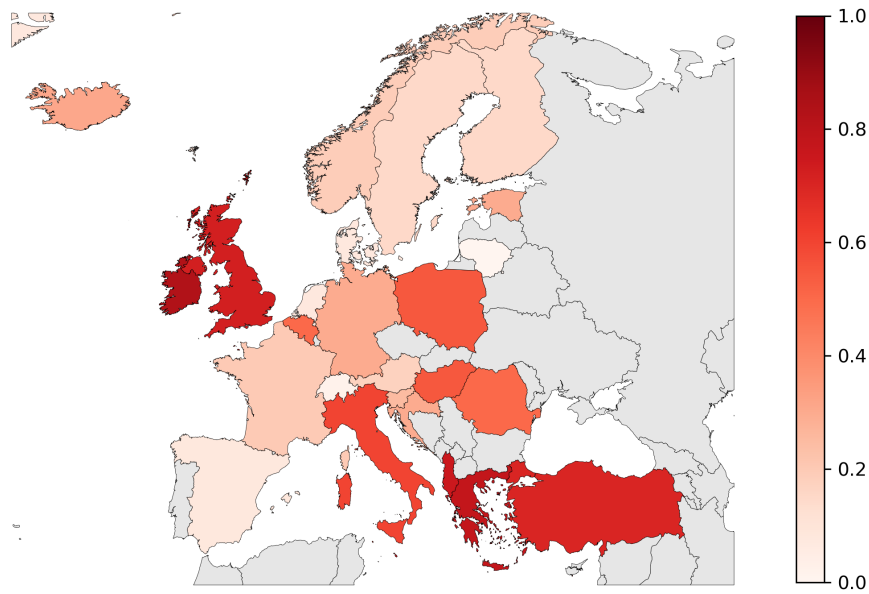


Figure 5: Crowding map

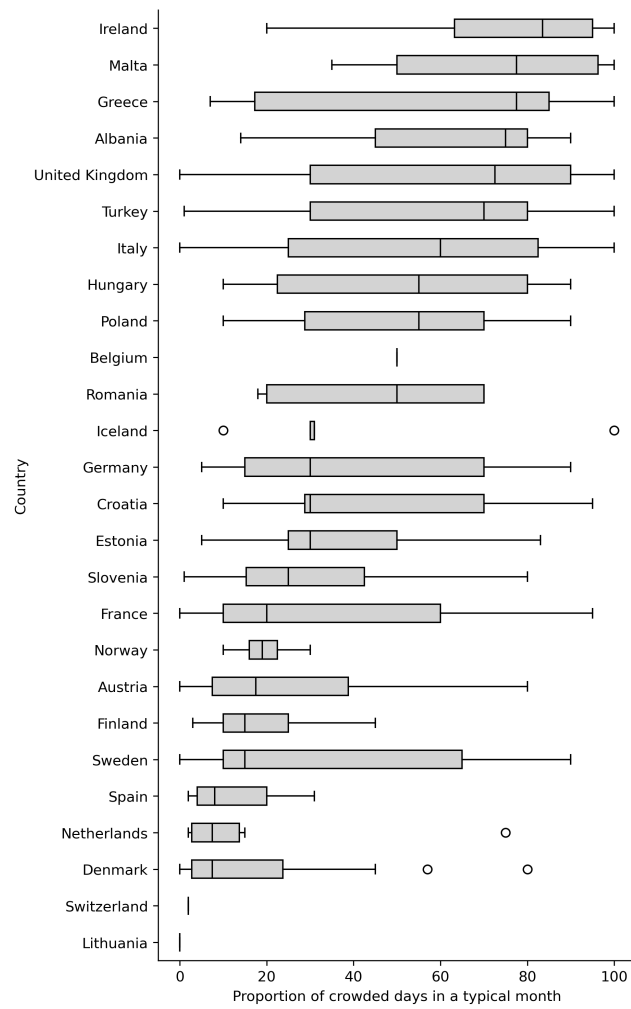


Figure 6: countrycrowding

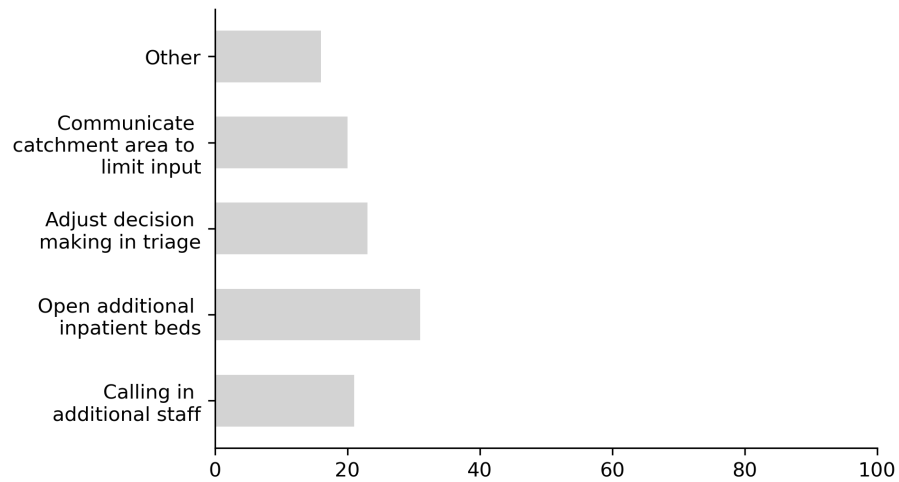
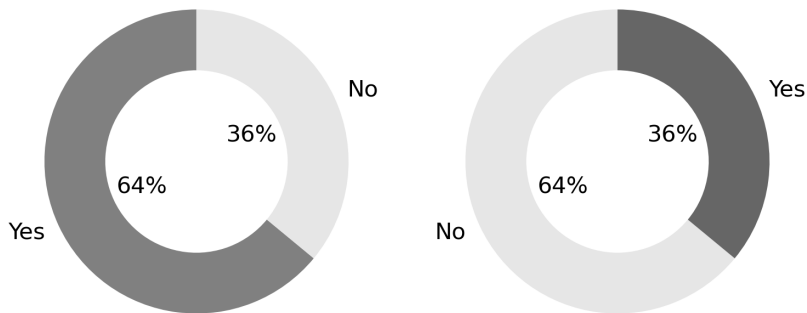


Figure 7: Interventions

### 3.4 Demand planning



(a) Would sufficiently accurate patient volume forecasting or crowding early warning software help alleviate the crowding problem?

(b) Do you currently use a patient volume forecasting or crowding early warning software to guide decision making?

Figure 8



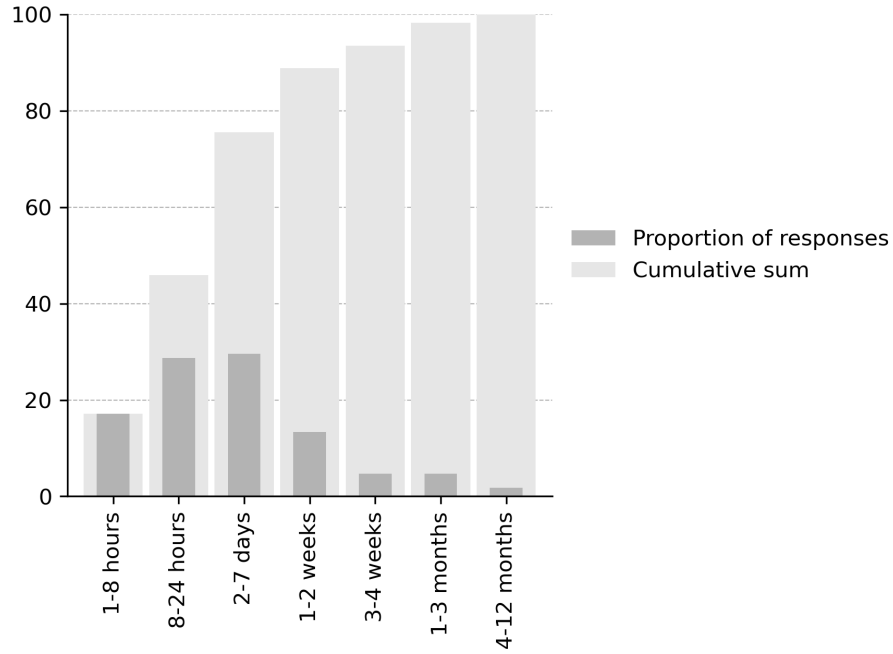


Figure 9: Horizon

## 4 Discussion

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