

Telemedical Maritime Assistance Services

2023 COLLABORATIVE REPORT



Seafarers'
Trust



The ITF Seafarers' Trust was established in 1981 as a body with charitable status under UK law. It is dedicated to the welfare of seafarers, irrespective of nationality, race or creed.

Registered Charity in England & Wales Number 281936

ITF House, 49-60 Borough Road, London SE1 1DR, United Kingdom

www.seafarerstrust.org

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Cover photo: Jeff Hyacinth A. Osal, "Bright Future"

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Introduction

For more than 100 years, various forms of national Telemedical Maritime Assistance Services (TMAS) to seafarers have been in operation across the world. These services developed to supply their own nation's needs, leading to significant differences between their scope and structure. Whilst most TMAS audit their activity to monitor and improve performance, mechanisms for formal cooperation, and particularly sharing of data, between nations has been limited.

In September 2019, the ITF Seafarers' Trust (ITFST) initiated a project to promote collaboration between the national telemedical services of Germany, Italy, the Netherlands and Norway. A commitment was made by these services to cooperate and share data to produce an international database for audit and research. This would facilitate improvement of the quality of remote healthcare available to all seafarers. Since initiation, the TMAS of Denmark, Finland, and the UK have joined the collaboration.

It soon became clear that standardisation of data provided from participating countries would be essential to allow meaningful comparison between TMAS. As a result of the project, the contributing services have worked to align the sets of data collected to this end.

The individual nations' TMAS workload presented here ranges from over 6,000 cases/year to approximately 200 cases/year. Given the differences between the services, this paper presents the total activity of the combined contributing services, followed by an accompanying breakdown of the data by each individual TMAS.

Observations, Similarities and Differences

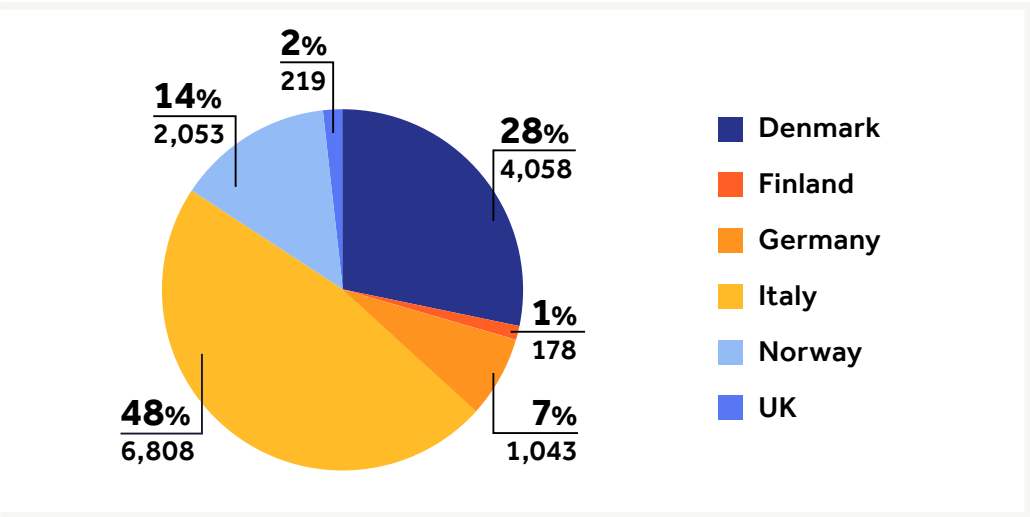


Joery Sencil Jr, "Empowered Woman in the World of Seafaring"

Number of cases diagnosed and advised

In 2022, four TMAS provided data relating to 12,316 cases; in 2023 the number of services reporting increased to six, handling 14,359 cases.

TMAS BY CASE HANDLED 2023

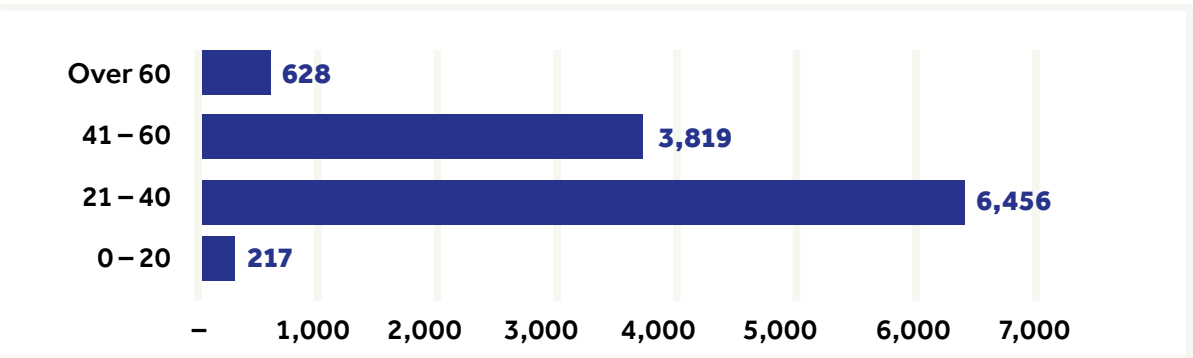


Characteristics of patients

For the TMAS in Italy, Denmark, and Germany, the majority of recorded cases relate to Filipino seafarers (although in 50% of Italy's cases, the nationality is not recorded). For Finland, Norway and the UK, the highest numbers are for each service's own nationals.

In terms of age profile, the largest cohort is in the 21-40 category across those services treating international crew. For the UK and Finland, the largest group is 41-60 years old. Denmark has a higher number of younger (0-20) and older (60+) patients. In 11% of cases, no age was reported.

TOTAL CASE BY AGE

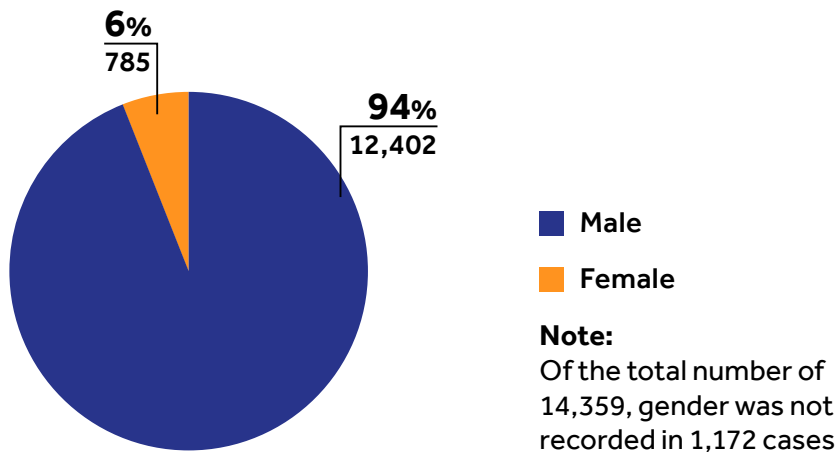


Note:

Age profiles were not provided by the Norwegian TMAS. Of the reported total number of 12,306, age was not recorded in 1,186 cases.

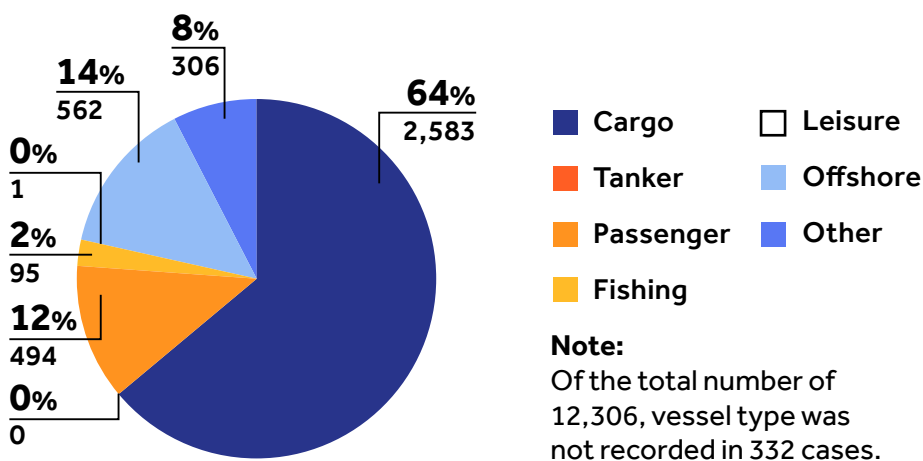
Approximately 6% of total cases treated, where gender was recorded, were women.

TOTAL CASE BY GENDER



Vessel type

TOTAL CASE BY VESSEL TYPE

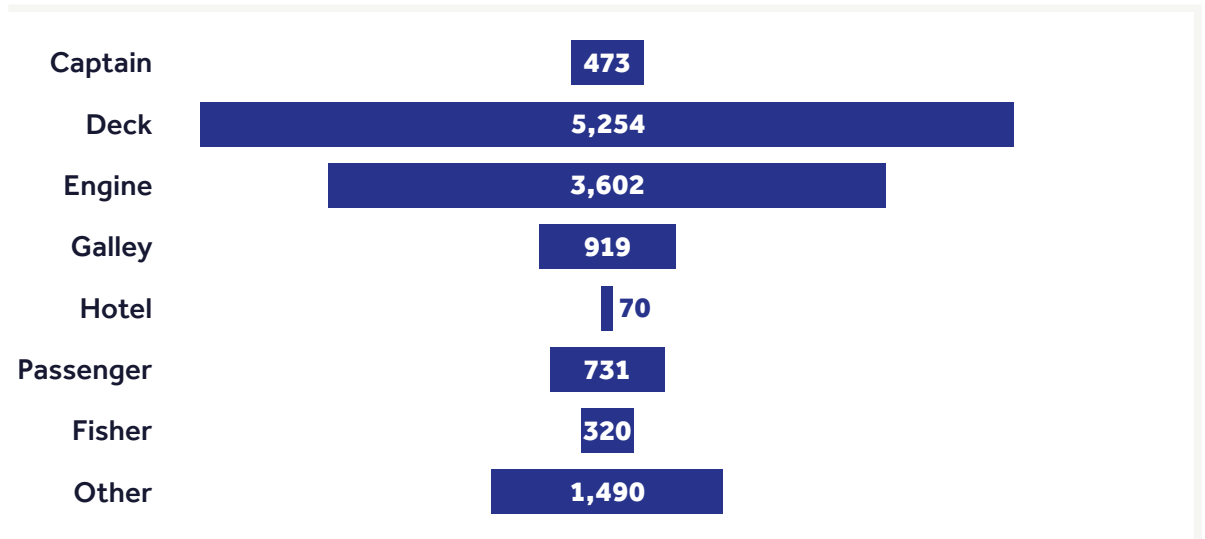


Over 60% of total cases concerned seafarers on Cargo ships. This figure is dominated by the data from the two largest services, Italy and Denmark. Germany reports 83% of cases on Cargo ships. The UK and Finland have their largest numbers on Offshore (24% of the UK total) and Passenger (74% of the Finland total) vessels respectively. Data from Norway is not included due to differences in breakdown of vessel data.

Position/Place of Work on Board

The largest group of seafarers contacting the participating services work on Deck – 5,254 plus 473 Captains. Only Finland has Passengers as its largest category (93 cases, 52% of its total number).

TOTAL CASE BY RANK/LOCATION



Note:

Of the total number of 14,359, position was not recorded in 1,500 cases.

Norlan Bamba Vizcarra, "Mandaragat"

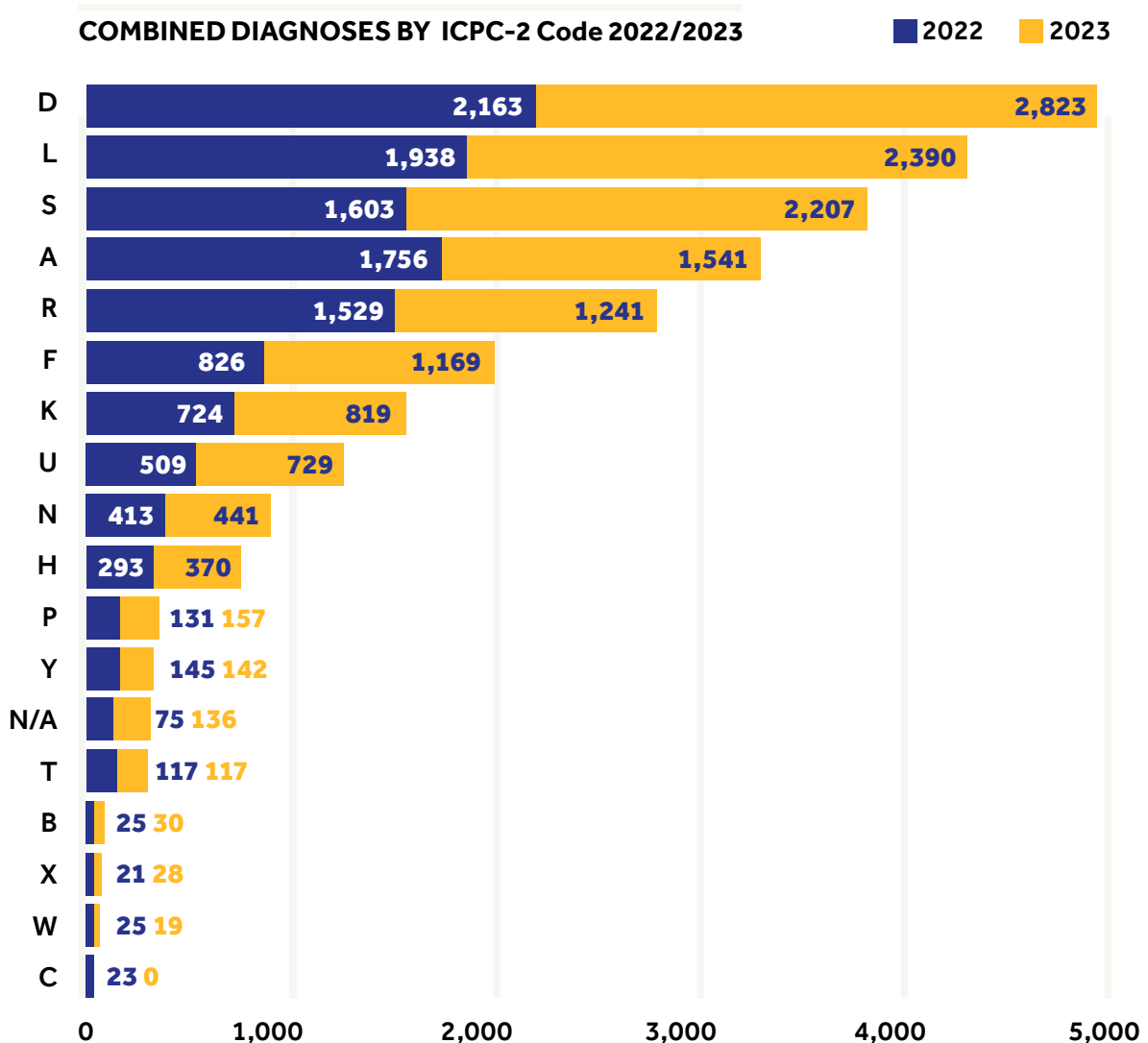


Epidemiological Data

Each country was asked to allocate ICPC-2 codes to their cases (see table below).

In 2022 and 2023, the top two diagnoses were the same: Digestive (2,163/2,823) and Musculoskeletal (1,938/2,390). Skin accounted for the third largest category in 2023 (2,207) as opposed to General in 2022 (1,756). Unsurprisingly, Respiratory declined in 2023 (1,241) relative to the previous year (1,603), when Covid-19 was more prevalent.

ICPC-2 Code	Description	ICPC-2 Code	Description
A	General/unspecified	R	Respiratory
B	Blood	S	Skin
D	Digestive inc. Dental	T	Endocrine and nutritional
F	Eye	U	Urological
H	Ear	W	Pregnancy
K	Cardiovascular	X	Female genital
L	Musculoskeletal	Y	Male genital
N	Neurological	N/A	N/A
P	Psychological		



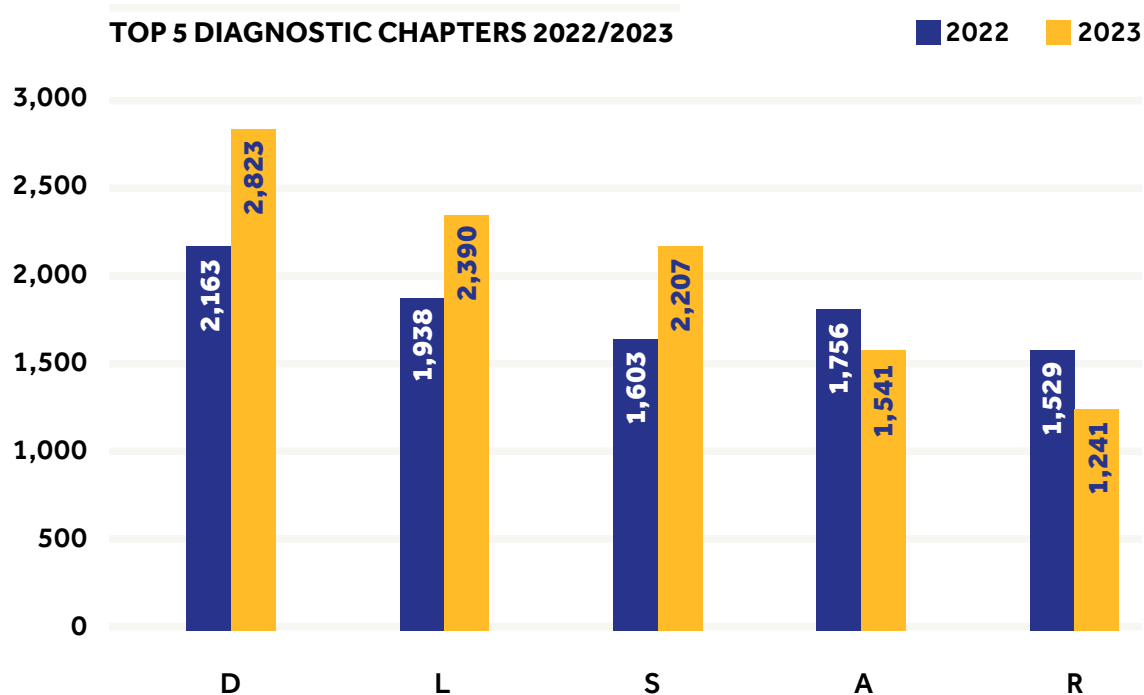


TABLE OF TOP 10 ICPC-2 DIAGNOSES BY TMAS

ICPC-2	DEN		FIN		GER		ITA		NOR		UK		TOT	%
A	377	9%	49	28%	98	9%	607	9%	342	17%	68	31%	1,541	10.73%
D	718	18%	29	16%	207	20%	1,535	23%	309	15%	25	11%	2,823	19.66%
F	441	11%	3	2%	100	10%	477	7%	145	7%	3	1%	1,169	8.14%
K	111	3%	31	17%	82	8%	441	6%	108	5%	46	21%	819	5.70%
L	773	19%	21	12%	208	20%	1,124	17%	251	12%	13	6%	2,390	16.64%
N	117	3%	22	12%	26	2%	163	2%	79	4%	34	16%	441	3.07%
R	385	9%	10	6%	30	3%	586	9%	223	11%	7	3%	1,241	8.64%
S	783	19%	6	3%	172	16%	1,094	16%	250	12%	2	1%	2,307	16.07%
U	142	4%	3	2%	54	5%	434	6%	89	4%	7	3%	729	5.08%
H	114	3%	0	0%	24	2%	162	2%	70	3%	0	0%	370	2.58%
Other	97	2%	4	2%	42	4%	185	3%	187	9%	14	6%	529	3.68%
TOTAL	4,058		178		1,043		6,808		2,053		219		14,359	100.00%

The blue columns represent the percentage individual services handled of each diagnostic code. The value in the orange column represents the percentage of each ICPC-2 diagnostic code of the total number of cases reported.

Dental Cases

Code D 'Digestive' includes 'Dental' (D19 and D82), which was further broken down as follows:

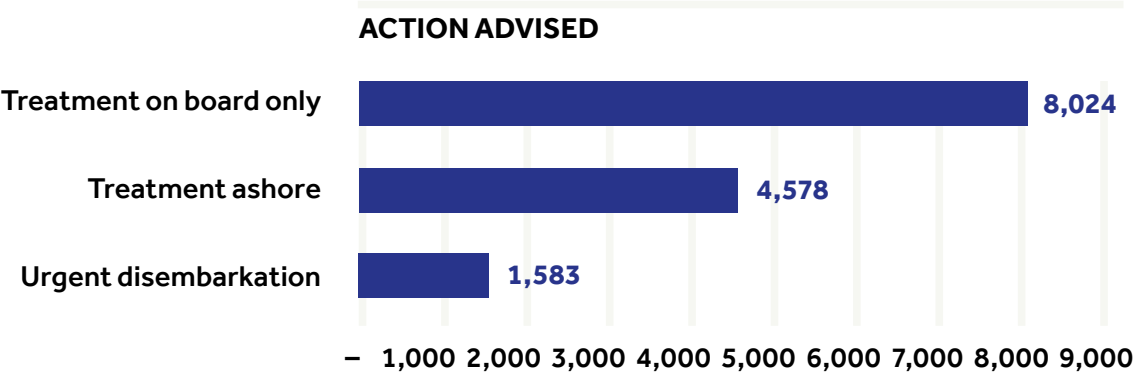
TMAS	D Total	Dental
DENMARK	718	256
FINLAND	29	0
GERMANY	207	58
ITALY	1,535	230
NORWAY	309	37
UK	25	1
TOTAL	2,823	582

Hand and Foot Injuries

Code L 'Musculoskeletal' includes L74 injuries to hands and feet which are here separated out from the main heading in the table below.

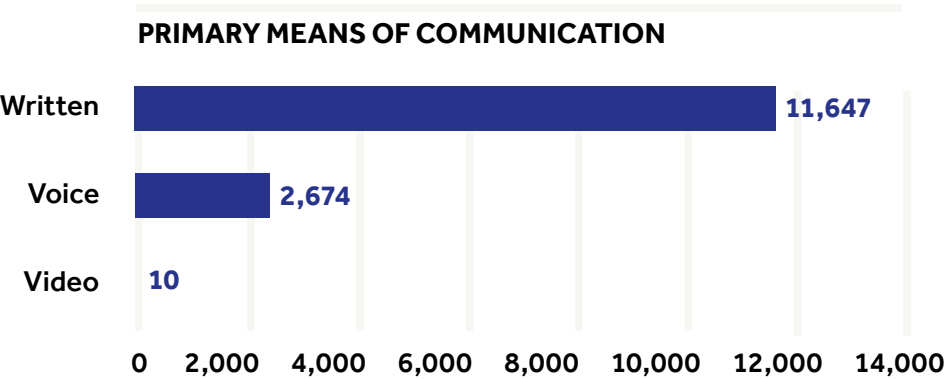
TMAS	L Total	Hand/feet
DENMARK	773	11
FINLAND	21	0
GERMANY	208	65
ITALY	1,124	58
NORWAY	251	10
UK	13	0
TOTAL	2,350	144

Course of Action Advised



Note:
Of the total number of 14,359, the action advised was not recorded in 180 cases.

Communication



Note:
Of the total number of 14,359, the primary means of communication was not recorded in 28 cases.

Discussion

The medical care of seafarers on board ship and ashore is addressed in Regulation 4.1 of the Maritime Labour Convention, 2006 (MLC, 2006). Paragraph 4. (d) of Standard A4.1 states that *'the competent authority shall ensure by a pre-arranged system that medical advice by radio or satellite communication to ships at sea, including specialist advice, is available 24 hours a day; medical advice, including the onward transmission of medical messages by radio or satellite communication between a ship and those ashore giving the advice, shall be available free of charge to all ships irrespective of the flag that they fly.'*

Whilst requirements to provide medical support for seafarers exist in international regulation, there is no clearly defined specification as to how these requirements should be met.

Some TMAS have developed to deliver advice internationally, whilst others are more directly linked to national flag or geographical area. These differences in scope have arisen for various reasons, including historical factors, governmental funding decisions, local health care provision, and variation in search and rescue services.

The above data shows significant variation amongst TMAS, in terms of workload and presenting conditions (the data from each contributing service are available in Appendix 1).

There is significant variation across the services in the proportion of cases treated on board, ashore or by urgent disembarkation. This is indicative of the differences in the sectors of the industry served and the practicalities of accessing treatment. The majority of Danish, Norwegian and German cases were treated on board, whereas the majority of UK cases, dealing primarily with the offshore sector, required urgent disembarkation. The Finnish service, which covers mainly passenger ships, most frequently advised treatment ashore. Similarly, the majority of Italy's cases were advised treatment ashore, with treatment on board a relatively close second.

The majority of communication was via email or other written communication. The potential exists for increased utilisation of video-conferencing as this technology becomes less expensive and more accessible from the maritime environment.

Conclusion

Despite the variation in activity across TMAS providers, the creation of a minimum, standard, data set for existing and future contributing TMAS has the potential to facilitate significant improvement of telemedical services supplied to seafarers worldwide.

Bibliography

1. Towards harmonisation of data collection: a methodology for TMAS collaboration: Project Report. Tommasi L. Int Marit Health 2023; 74,4:280-295
2. The use of Radio and Telemedicine by TMAS centers in Provision of Medical Care to Seafarers: A Systemic Review. G.Battineni, N Chintolapundi, G. Gagliardi and F. Amenta J.Pers Med 2023 Jul 13(7)01171
3. Overview of oral health status and associated risk factors in maritime settings: An updated systematic review. Nguyen. T et al. <https://doi.org/10.1371/journal.pone.0293118> October 18, 2023



Appendix 1:

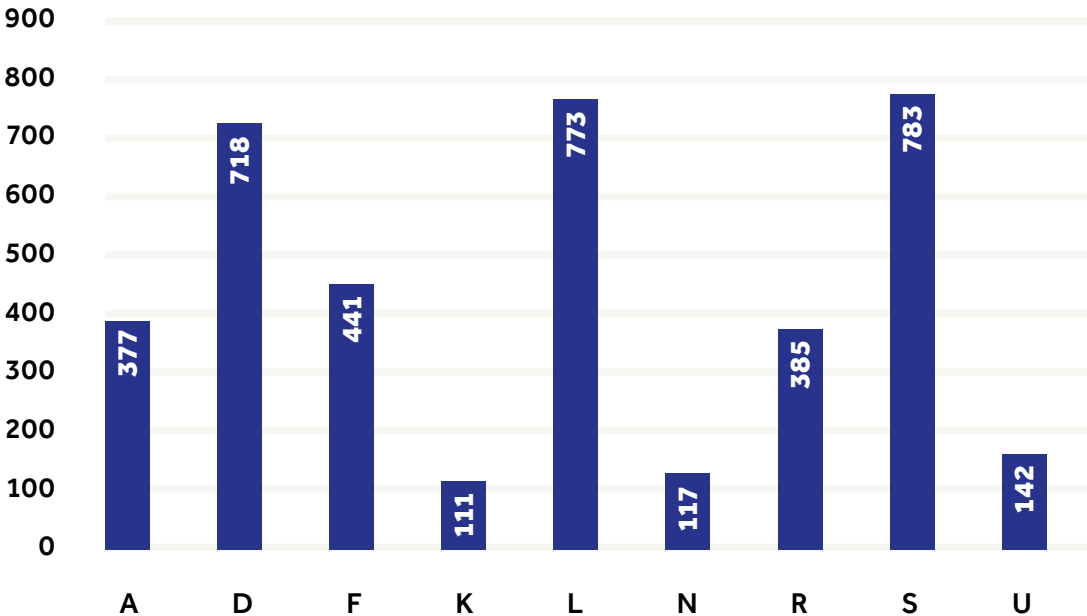
Statistics by Service

Denmark

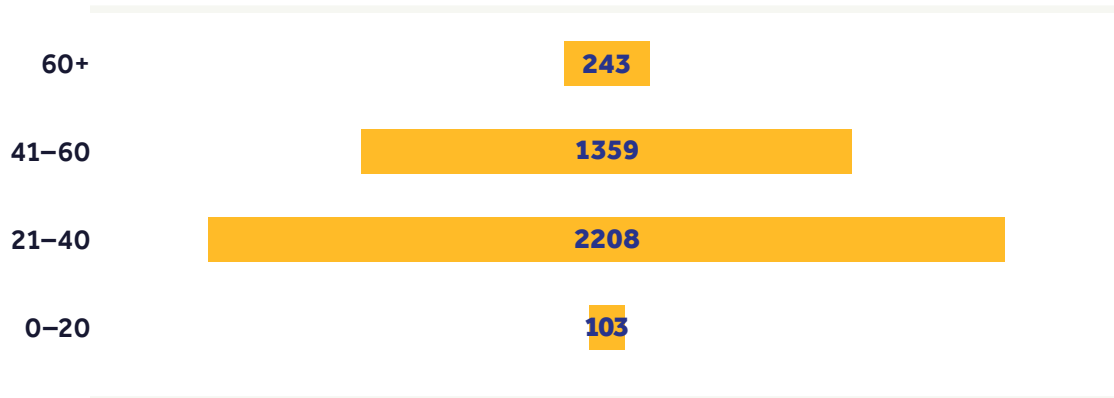
Radio Medical Denmark is a telemedicine specialist unit supplying remote medical services to seafarers at any time. Radio Medical Denmark is affiliated with the University Hospital of Southern Denmark, Esbjerg Hospital. It has a staff of 13 (of which 9 are medical doctors) and serves seafarers on Danish and Faroese registered ships as well as Danish owned vessels.

Since 1995, Esbjerg Hospital has been responsible for providing medical assistance to Danish-flagged ships worldwide. In late 2023, the doctors underwent an intensive communication course, where a professional setup with i.e. actors focused on effective and good communication - both written and oral. This gave the doctors a new perspective on communicating with seafarers – an essential part of the work in a TMA.

DENMARK: ICPC-2



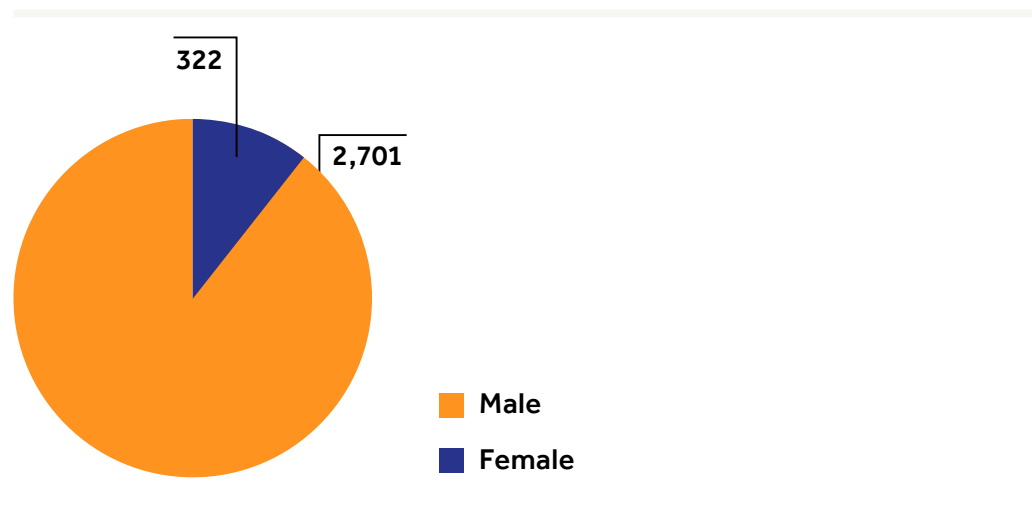
DENMARK: AGE PROFILE



Note:

Of the total number of 4,058, age was not recorded in 145 cases.

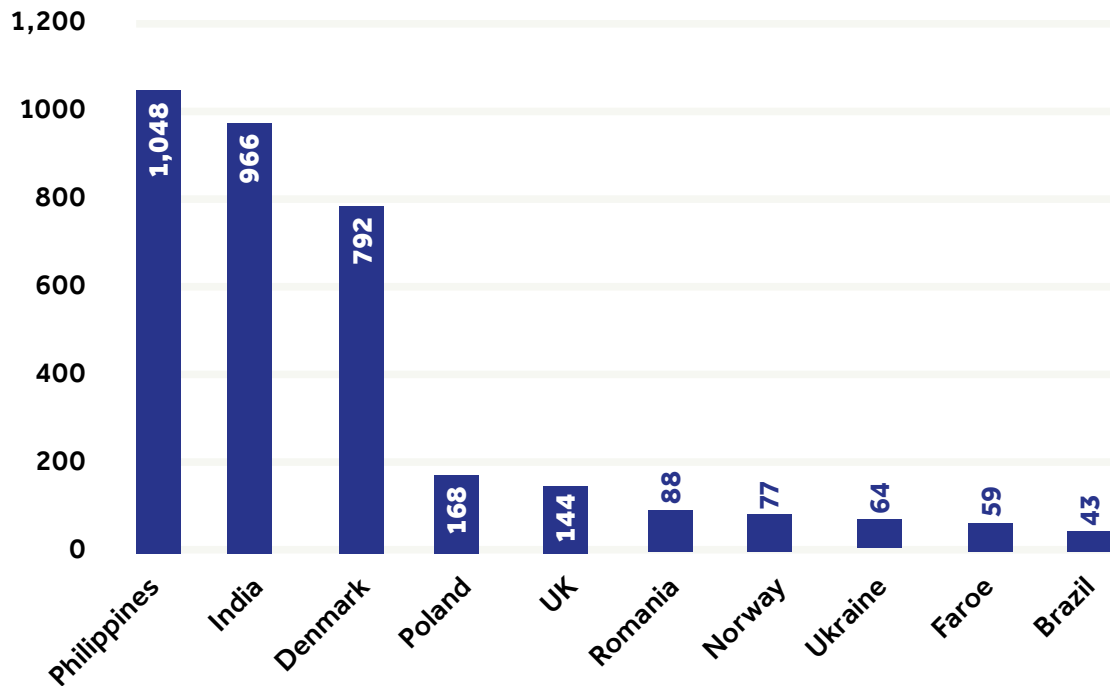
DENMARK: GENDER



Note:

Of the total number of 4,058, gender was not recorded in 1,035 cases.

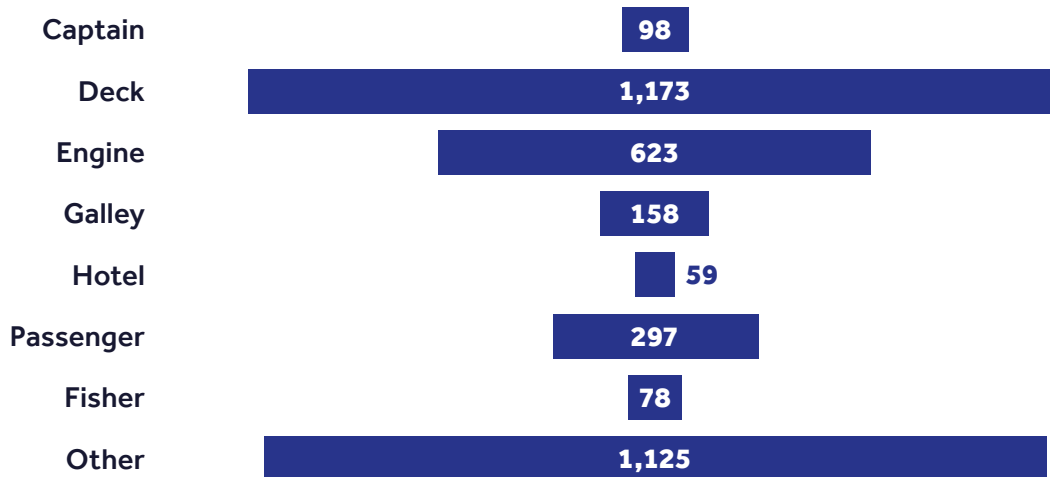
DENMARK: NATIONALITY



Note:

Of the total number of 4,058, nationality was not recorded in 182 cases.

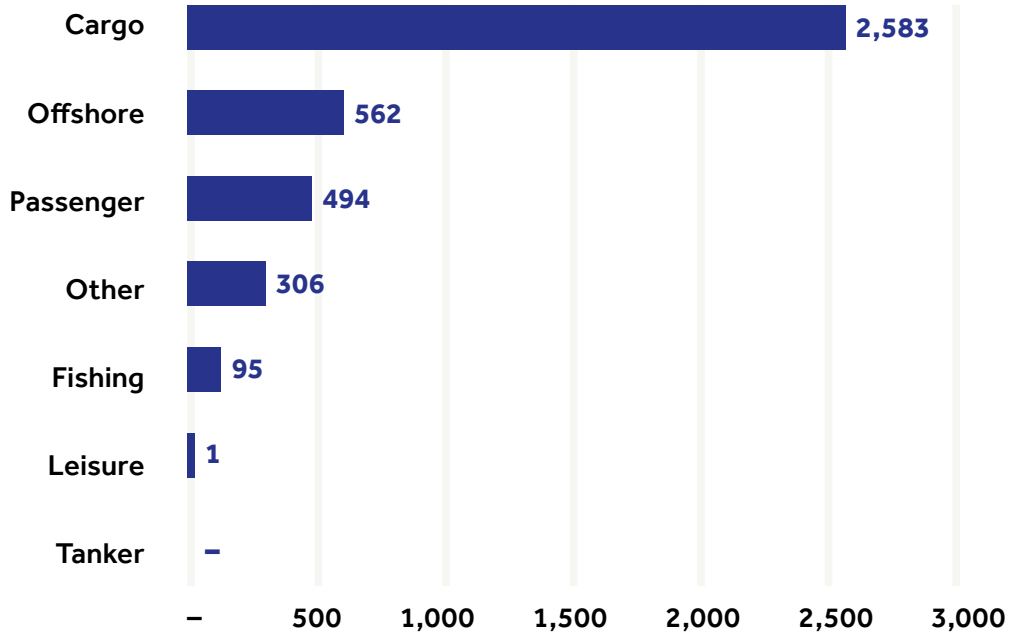
DENMARK: RANK/LOCATION



Note:

Of the total number of 4,058, rank/location was not recorded in 447 cases.

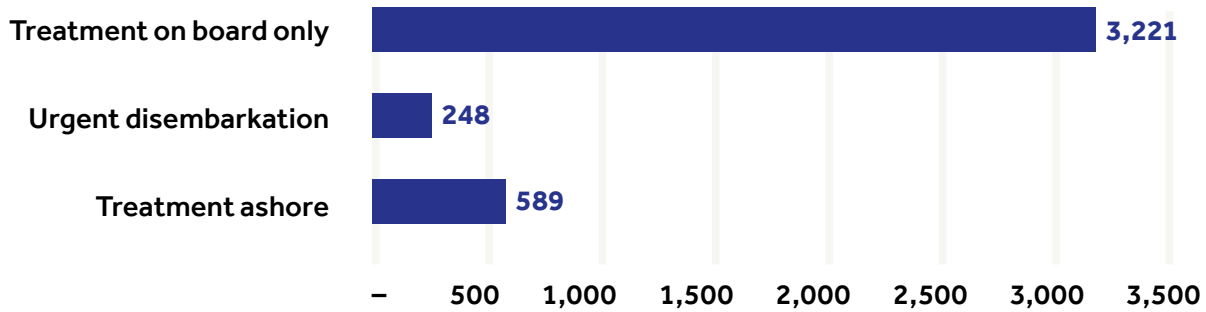
DENMARK: VESSEL TYPE



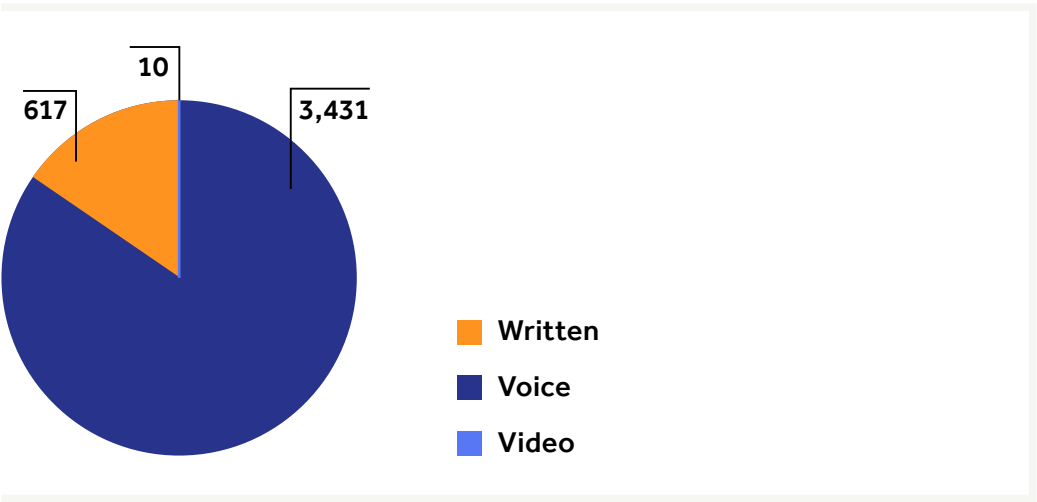
Note:

Of the total number of 4,058, vessel type was not recorded in 17 cases.

DENMARK: ACTION ADVISED



DENMARK: PRIMARY COMMUNICATION



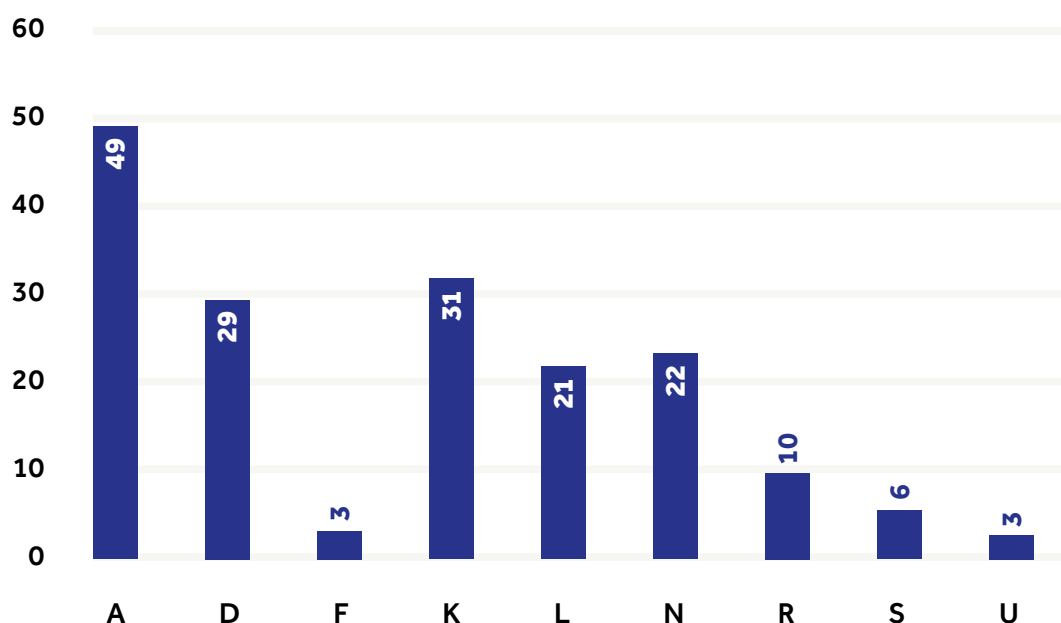
Ken Ontal Dela Pena, "Safety and Responsibility"



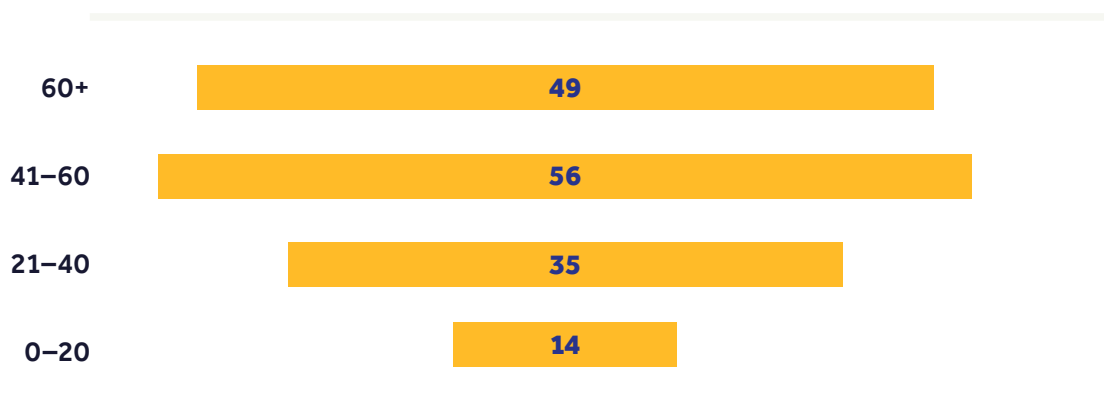
Finland

TMAS calls for Finnish vessels are received by two marine rescue centres, in Turku on the west coast and Helsinki in the south. The calls are transferred to the emergency medical service physician on duty in each respective city. The profile of the Finnish TMAS calls is very specific with the absolute majority of calls originating from passenger vessels sailing between Finland, Sweden and Estonia. These vessels have a registered nurse on board, with the main workload relating to medical problems of passengers.

FINLAND: ICPC-2



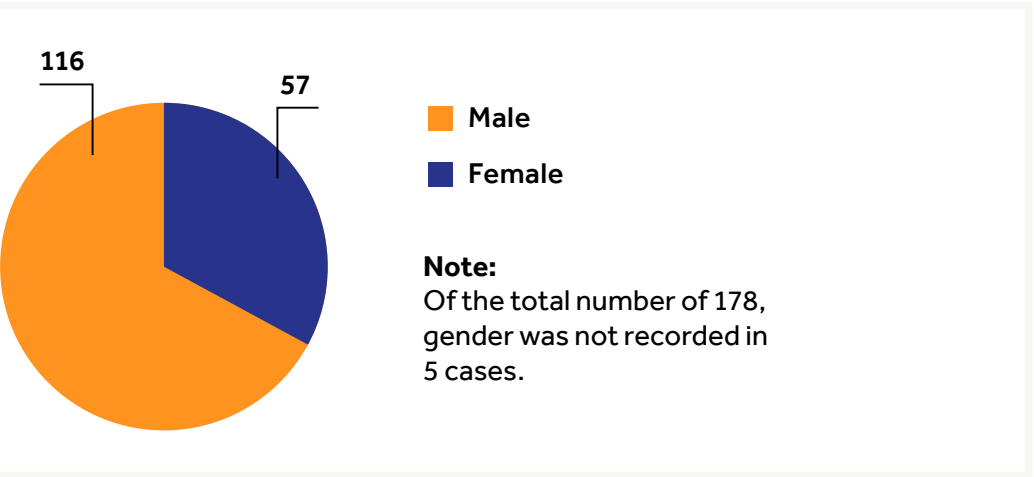
FINLAND: AGE PROFILE



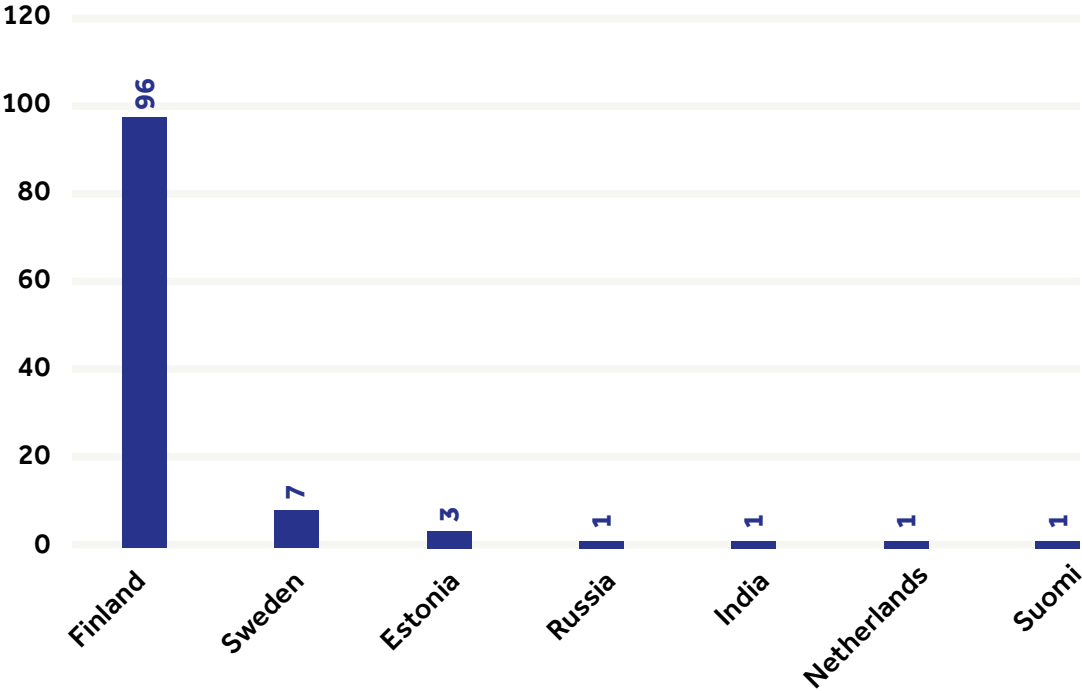
Note:

Of the total number of 178, age was not recorded in 24 cases.

FINLAND: GENDER

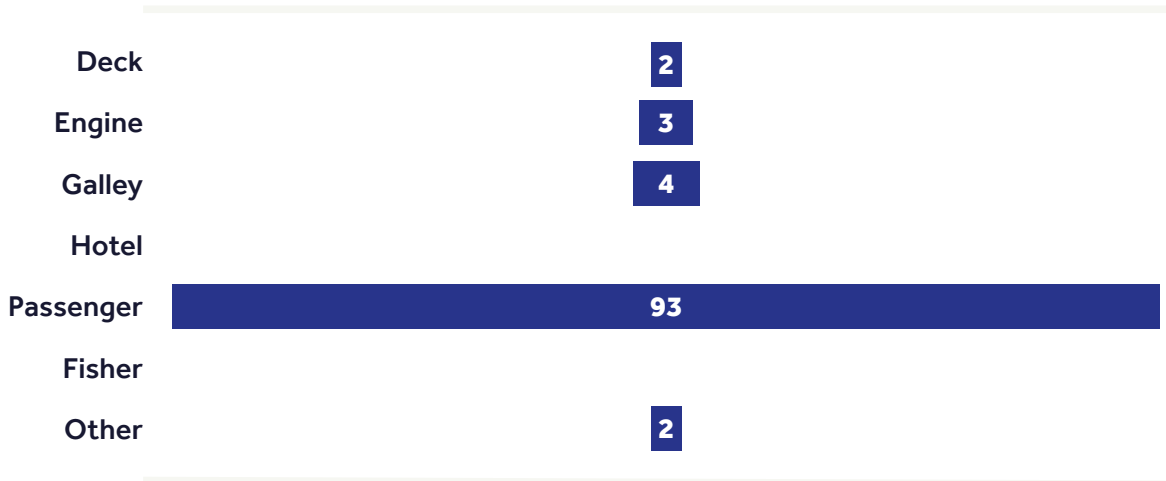


FINLAND: NATIONALITY



Note:
Of the total number of 178, nationality was not recorded in 68 cases.

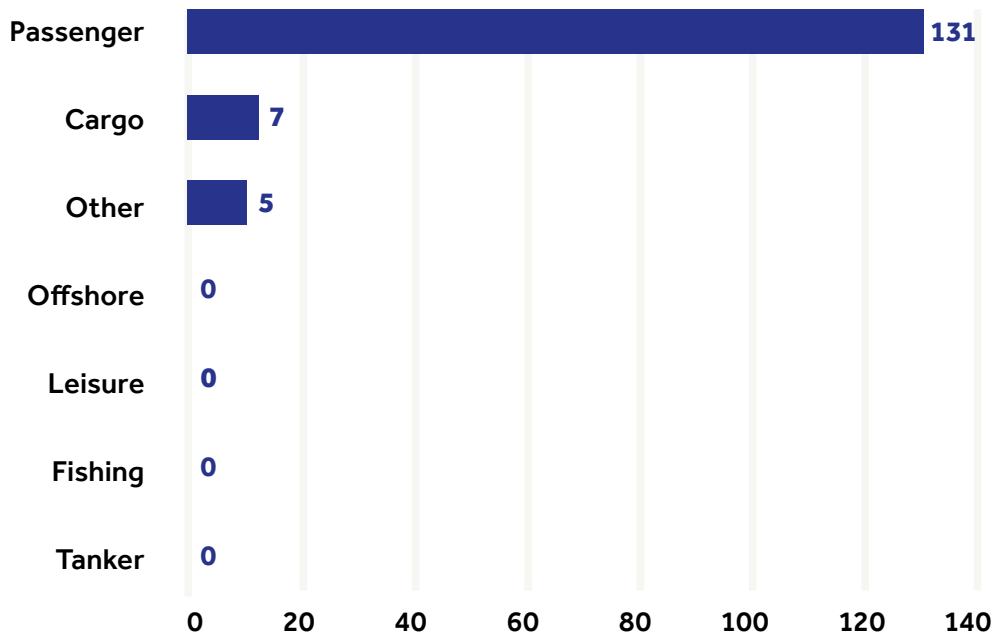
FINLAND: RANK/LOCATION



Note:

Of the total number of 178, rank/location was not recorded in 74 cases.

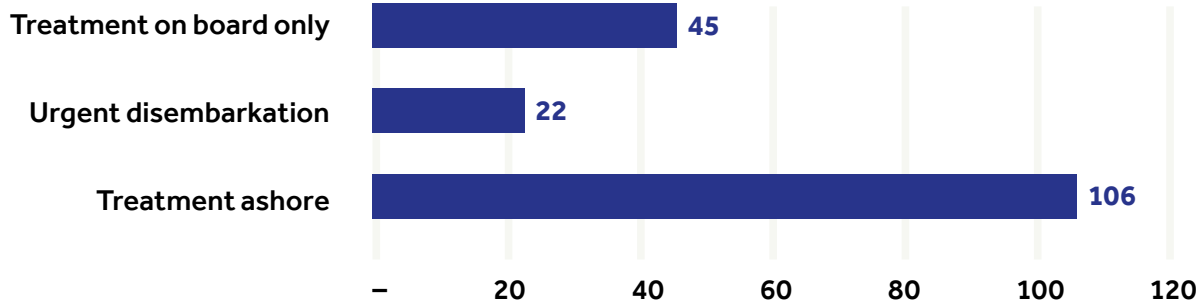
FINLAND: VESSEL TYPE



Note:

Of the total number of 178, vessel type was not recorded in 35 cases.

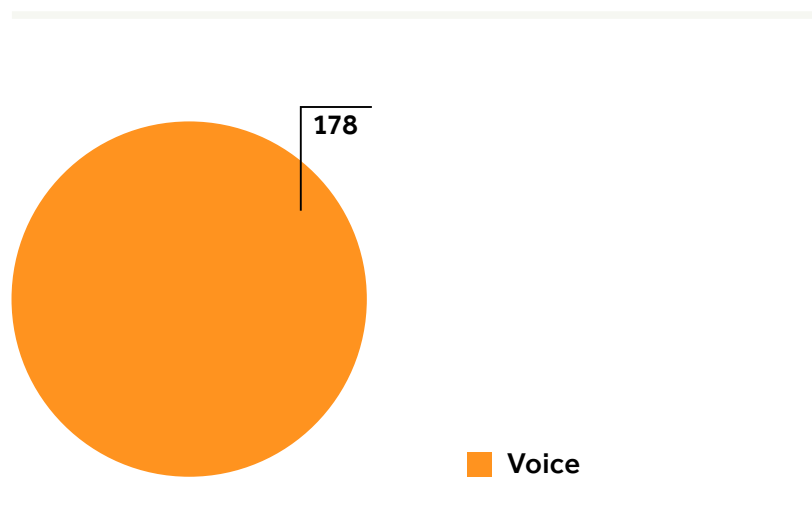
FINLAND: ACTION ADVISED



Note:

Of the total number of 178, action advised was not recorded in 5 cases.

FINLAND: PRIMARY COMMUNICATION

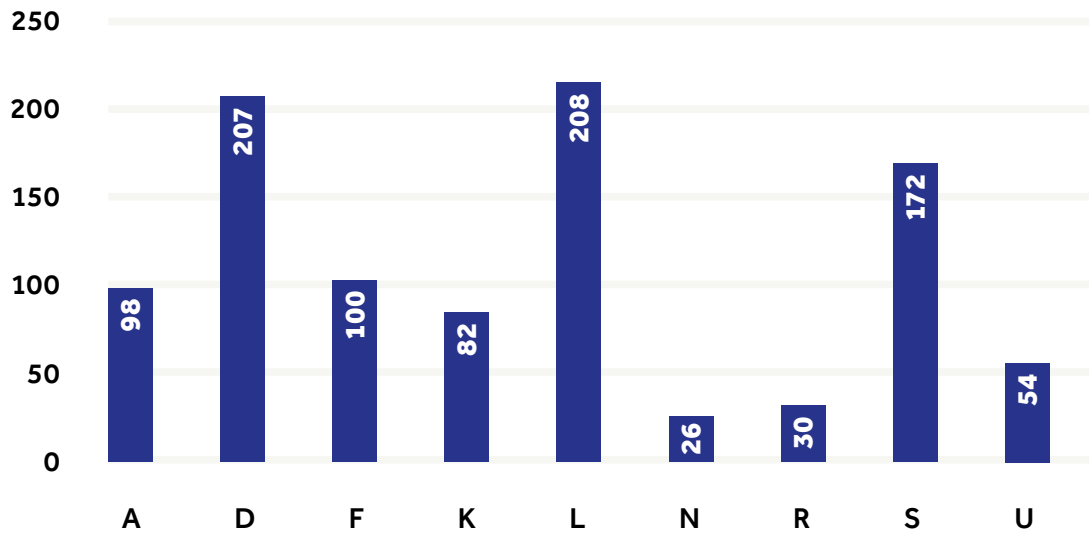


Germany

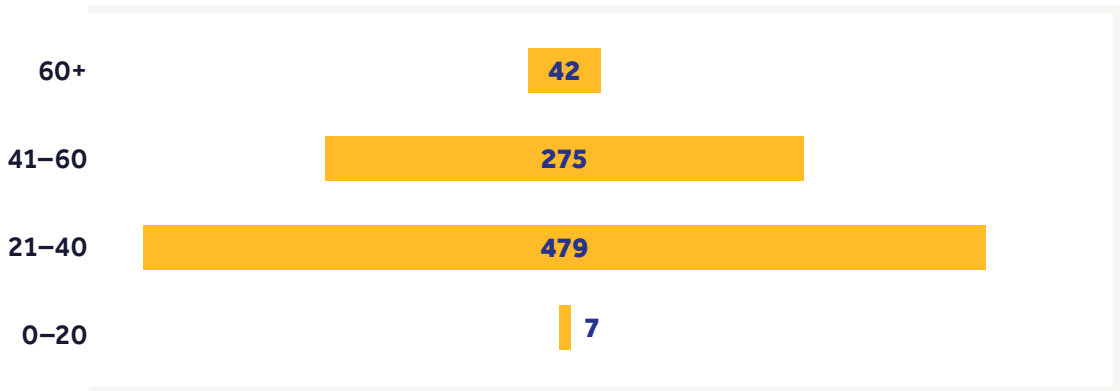
The Telemedical Maritime Assistance Service (TMAS) Germany is a telemedicine specialist unit with the task of offering medical service to seafarers continuously all over the world. TMAS Germany is located at the HELIOS Klinik Cuxhaven.

It has a staff of 12 medical doctors with experience in anaesthesiology, intensive care and emergency medicine. They serve seafarers on German registered ships, as well as from other ships calling the service from all over the world.

GERMANY: ICPC-2



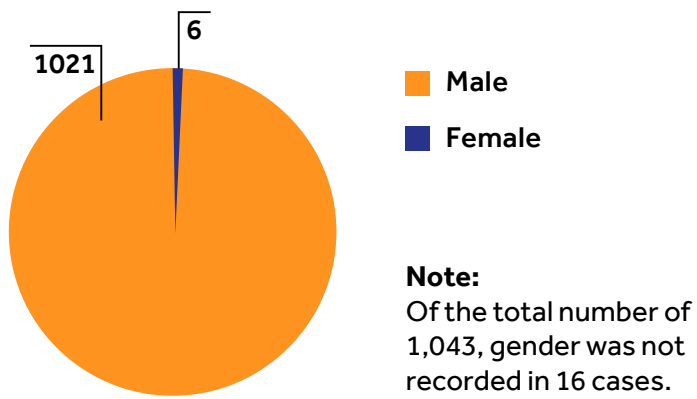
GERMANY: AGE PROFILE



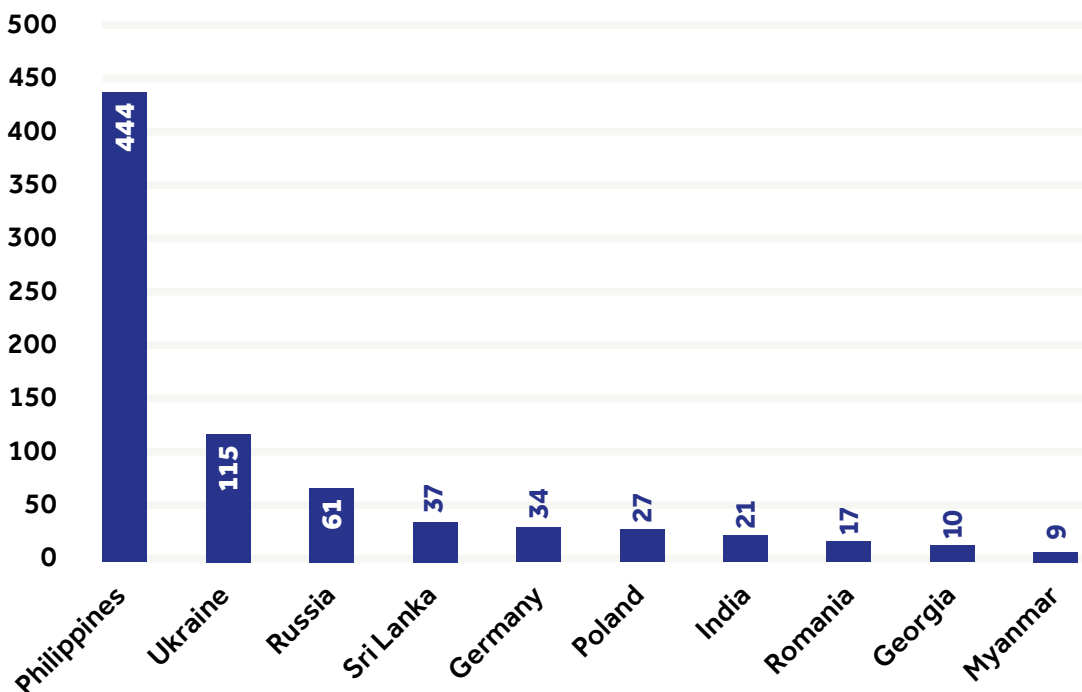
Note:

Of the total number of 1,043, age was not recorded in 240 cases.

GERMANY: GENDER

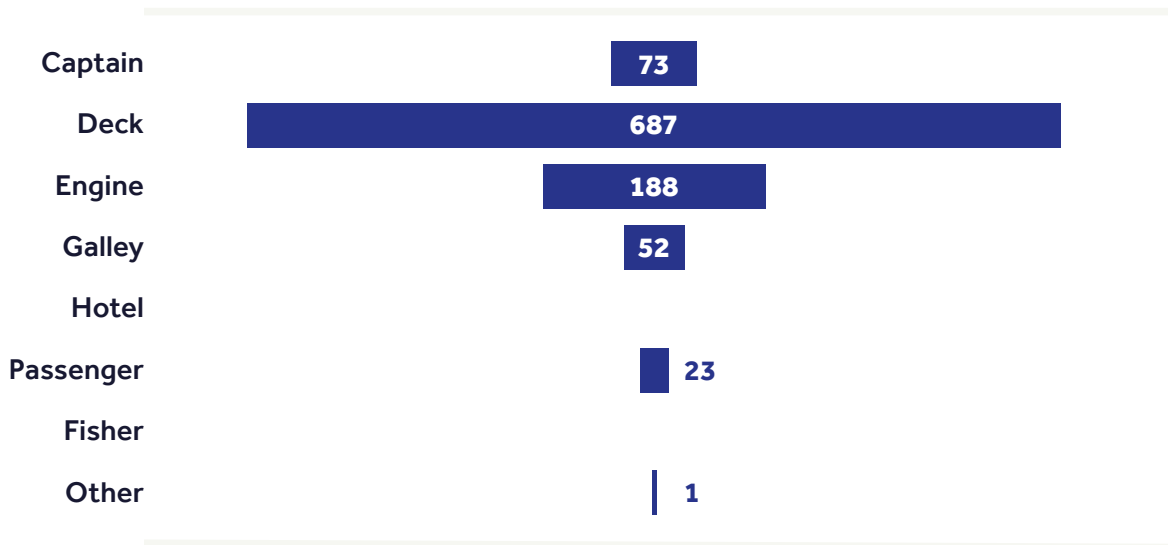


GERMANY: NATIONALITY



Note:
Of the total number of 1,043, nationality was not recorded in 214 cases.

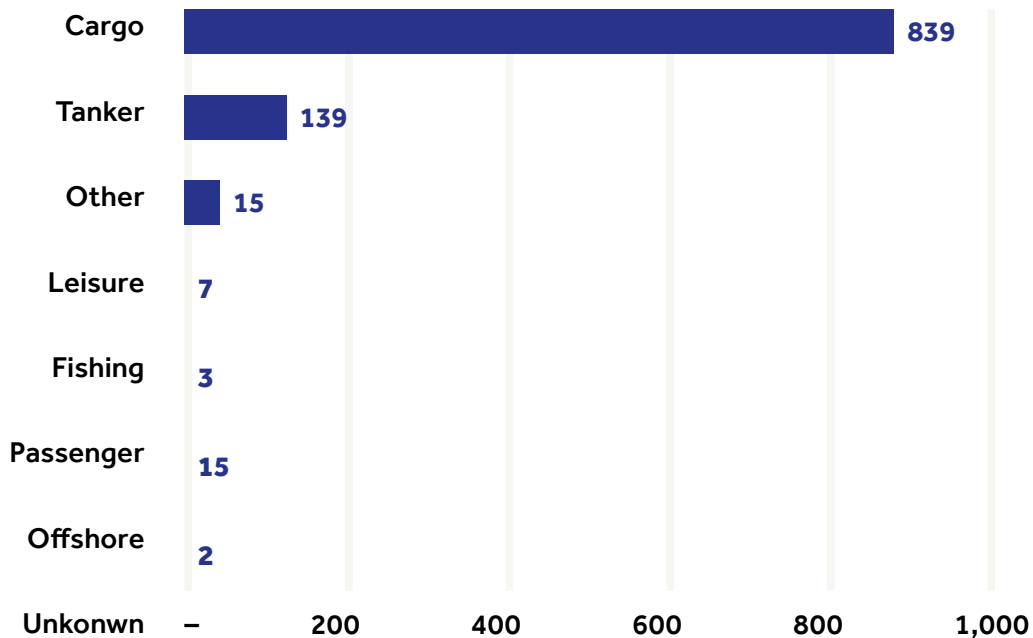
GERMANY: RANK/LOCATION



Note:

Of the total number of 1,043, rank/location was not recorded in 19 cases.

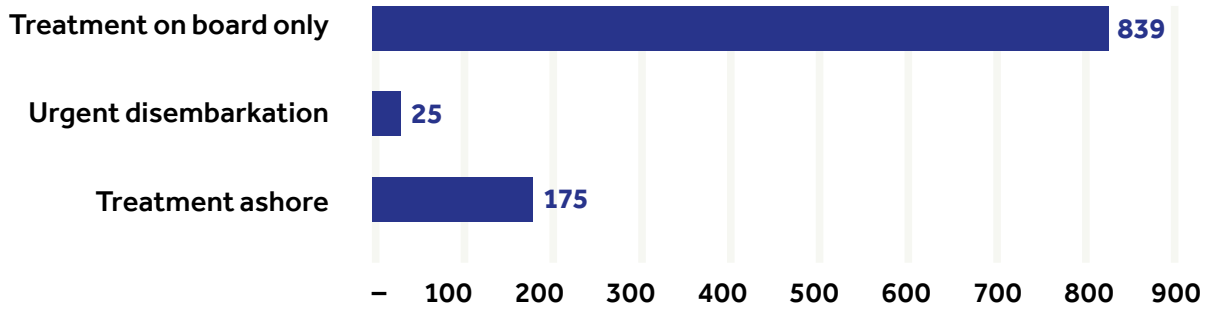
GERMANY: VESSEL TYPE



Note:

Of the total number of 1,043, vessel type was not recorded in 2 cases.

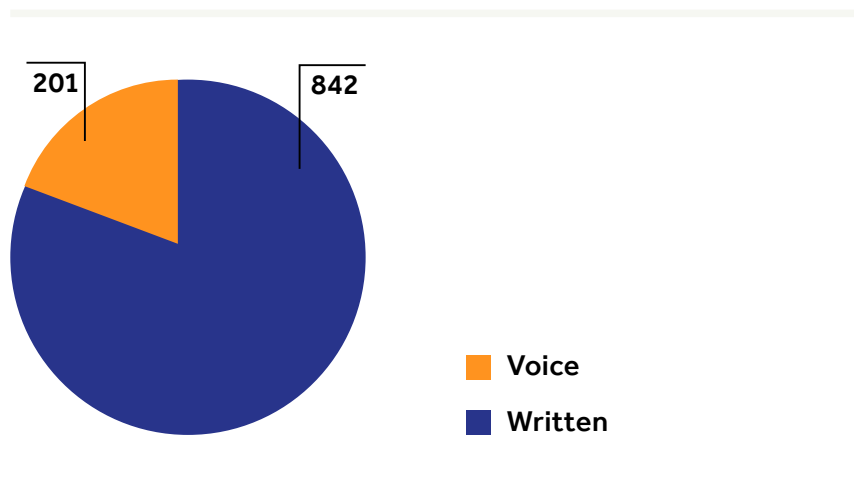
GERMANY: ACTION ADVISED



Note:

Of the total number of 1,043, action advised was not recorded in 4 cases.

GERMANY: PRIMARY COMMUNICATION



Italy

The International Radio Medical Centre (Centro Internazionale Radio Medico: **C.I.R.M.**), headquartered in Rome, is the Italian public telemedical maritime assistance service for ships. Founded in 1935, C.I.R.M. provides telemedical advice to ships of any nationality navigating all seas of the world. The service is available continuously and is free, regardless of nationality, employment, and professional background of the seafarer, and regardless of the geographical location, flag state, and ownership of the vessel.

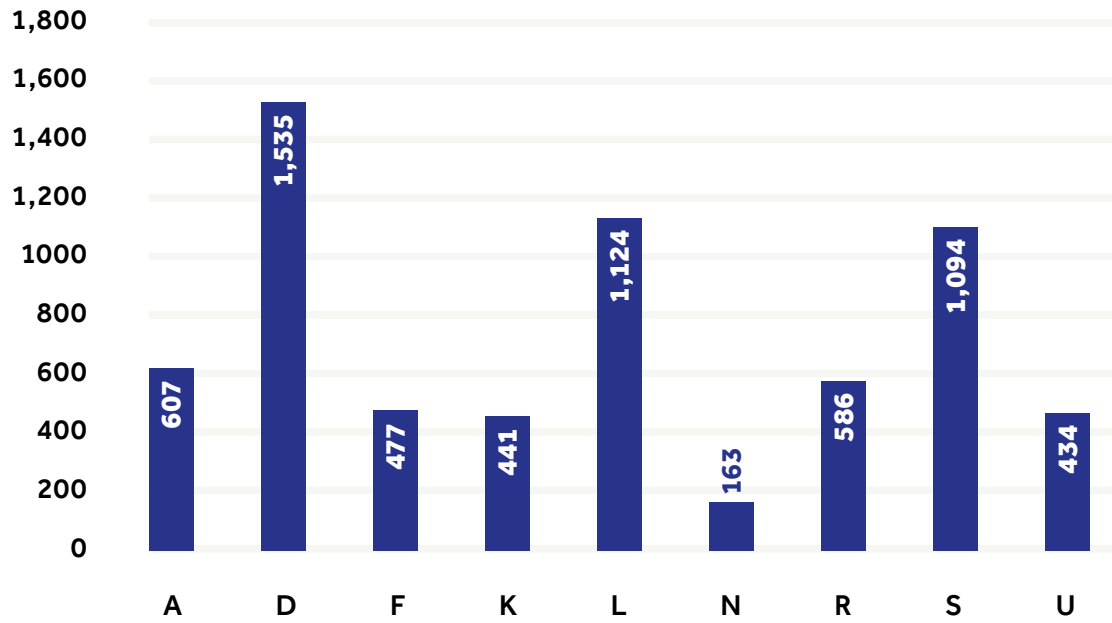
If necessary, C.I.R.M. coordinates arrangements for the transfer of a patient to a ship with a doctor on board or, if the distance allows, for the evacuation of the patient for hospitalization. The doctors on continuous duty at C.I.R.M. headquarters (No. = 10) manage medical advice requests, provide appropriate treatment guidance, and maintain contact with every ship that requests assistance, following up on the patient's progress until recovery or evacuation to a shore hospital.

Telemedical consultations are provided in Italian, or English, through telephone/voice and email by experienced medical practitioners specifically trained for providing maritime telemedical assistance.

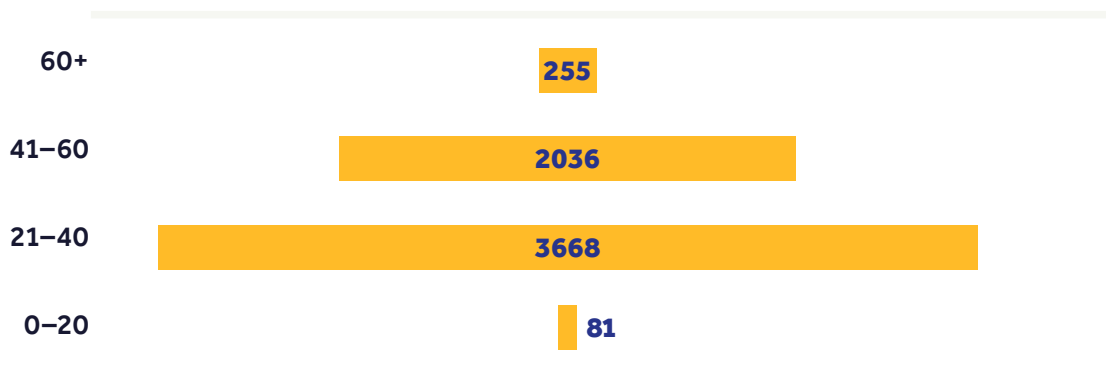
Century June Monterola, "Who run the world? Girls!"



ITALY: ICPC-2



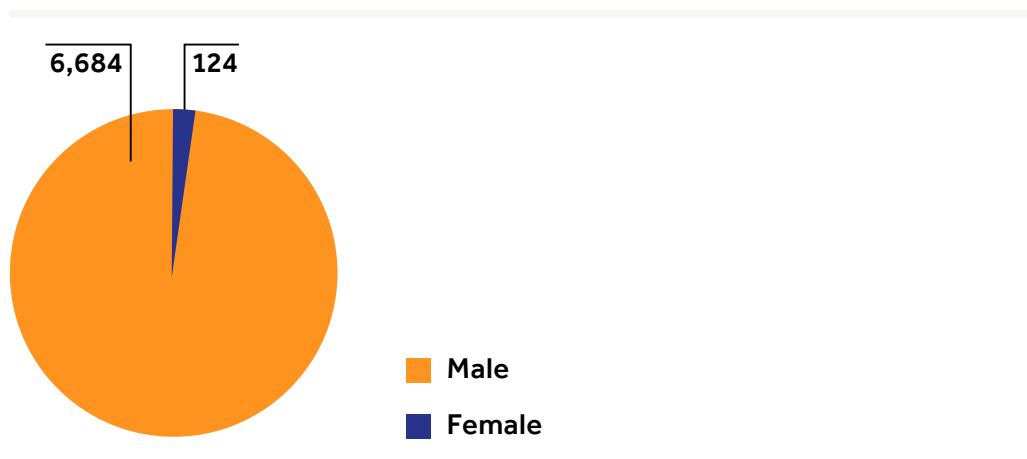
ITALY: AGE PROFILE



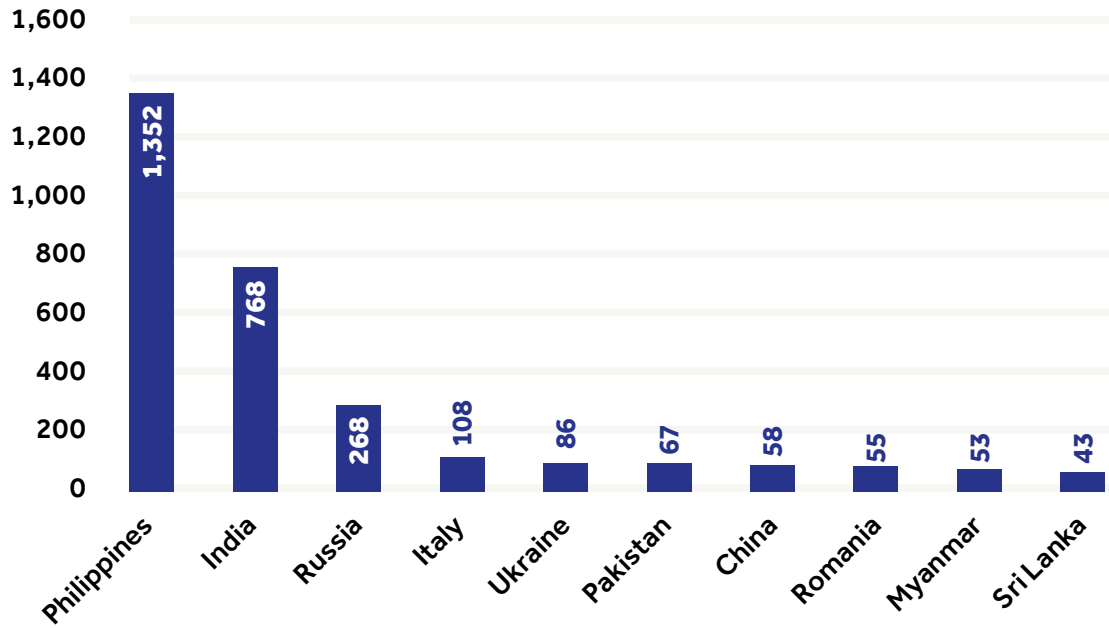
Note:

Of the total number of 6,808, age was not recorded in 768 cases.

ITALY: GENDER



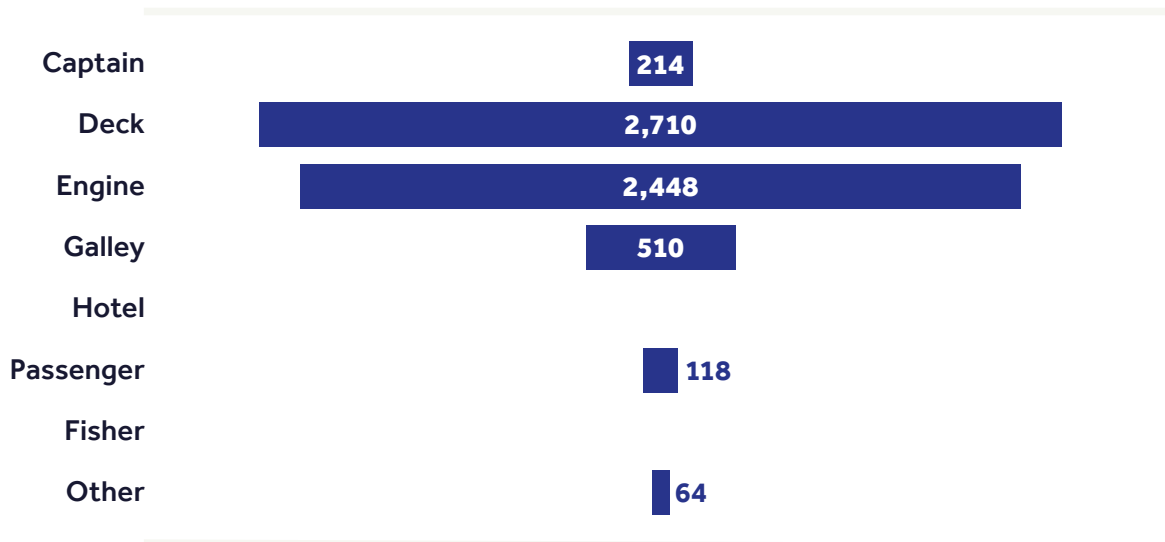
ITALY: NATIONALITY



Note:

Of the total number of 6,808, nationality was not recorded in 3,433 cases.

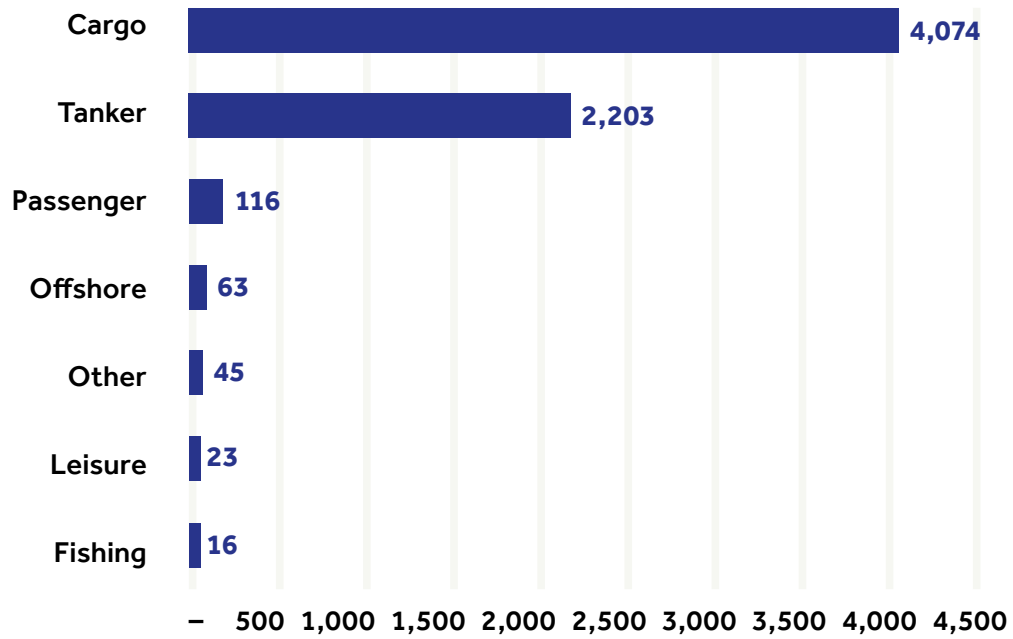
ITALY: RANK/LOCATION



Note:

Of the total number of 6,808, rank/location was not recorded in 744 cases.

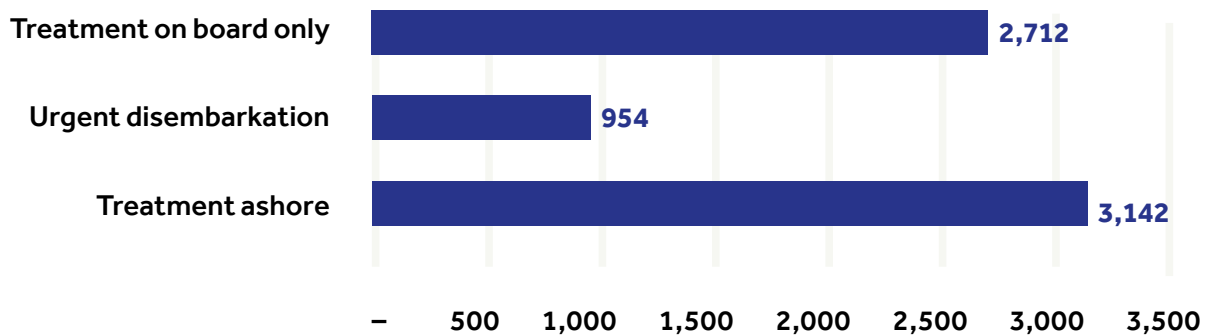
ITALY: VESSEL TYPE



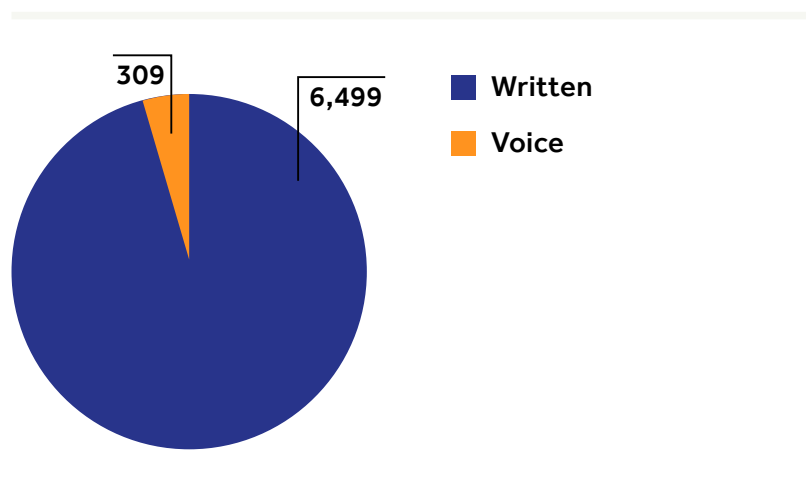
Note:

Of the total number of 6,808, vessel type was not recorded in 268 cases.

ITALY: ACTION ADVISED



ITALY: PRIMARY COMMUNICATION



Norway

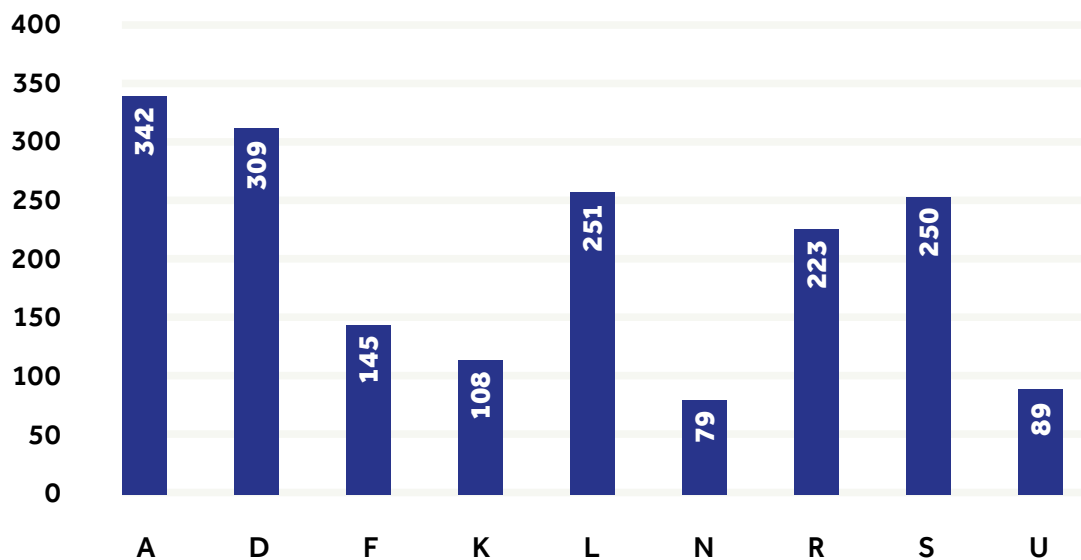
Radio Medico Norway is the Norwegian public telemedical maritime assistance service for ships, provided by the Norwegian Centre for Maritime and Diving Medicine at the Haukeland University Hospital in Bergen, in cooperation with the Coastal Radio Stations and the Joint Rescue Coordination Centres in Norway.

The service is available 24/7 and is free of charge to all seafarers and fishers worldwide (whilst at sea), regardless of nationality, employment and professional background of the seafarer or fisher and regardless of geographical location, flag state and ownership of vessel. The telemedical services are accessed through the medical officer / medic on board, who communicates directly with the duty doctor at Radio Medico Norway.

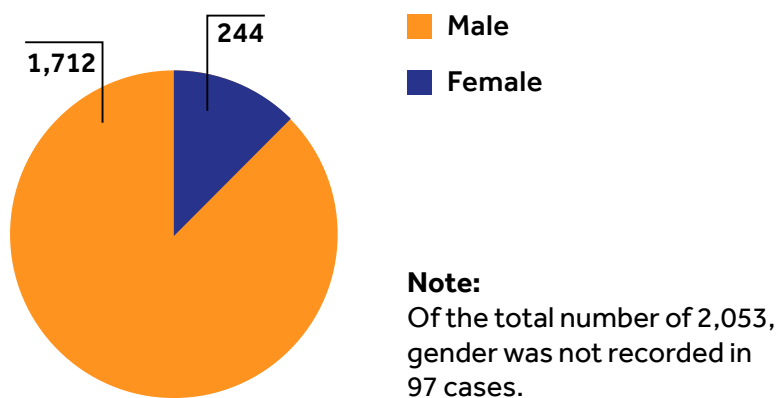
Telemedical consultations to seafarers and fishers are provided in Norwegian, and English, through telephone/voice, email and video link by experienced medical practitioners at Haukeland University Hospital, with training in maritime medicine. Interpretation to other languages is provided by qualified interpreters.

Telemedical assistance services are provided by Radio Medico Norway to the offshore industries and to a number of offshore installations and mobile units on the Norwegian continental shelf.

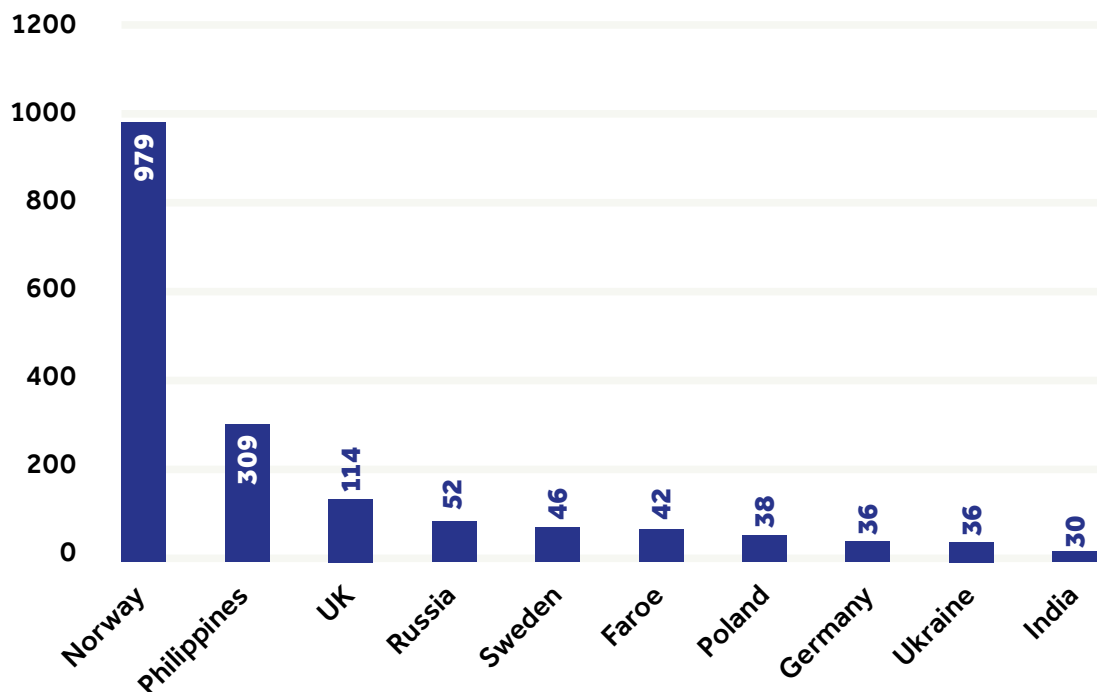
NORWAY: ICPC-2



NORWAY: GENDER

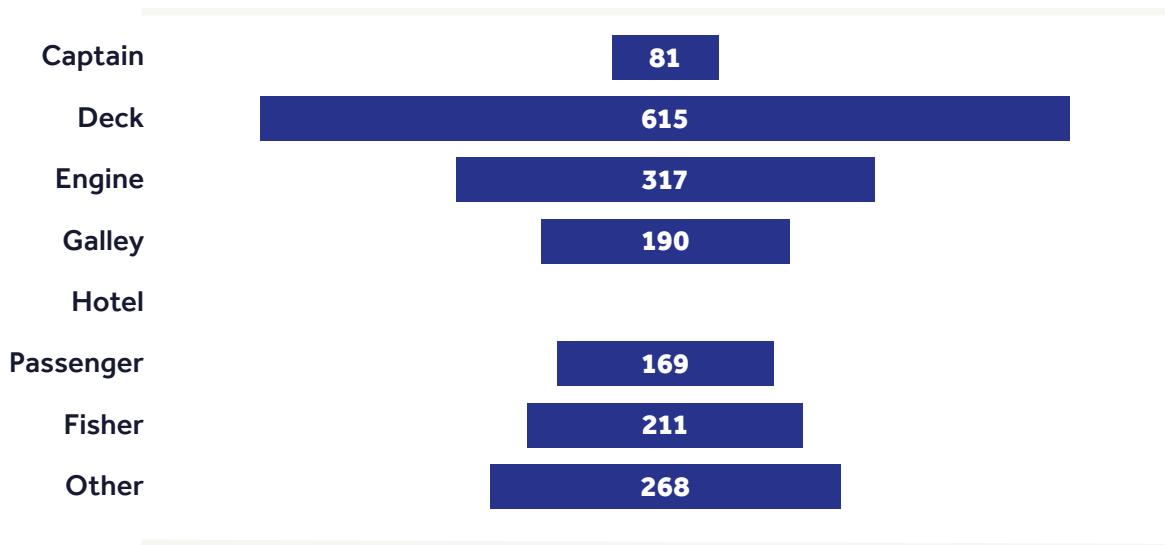


NORWAY: NATIONALITY



Note:
Of the total number of 2,053, nationality was not recorded in 141 cases.

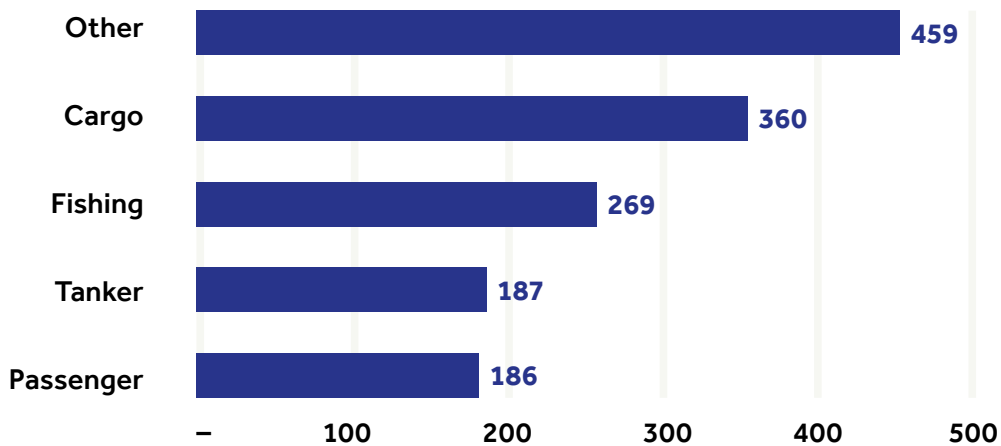
NORWAY: RANK/LOCATION



Note:

Of the total number of 2,053, rank/location was not recorded in 202 cases.

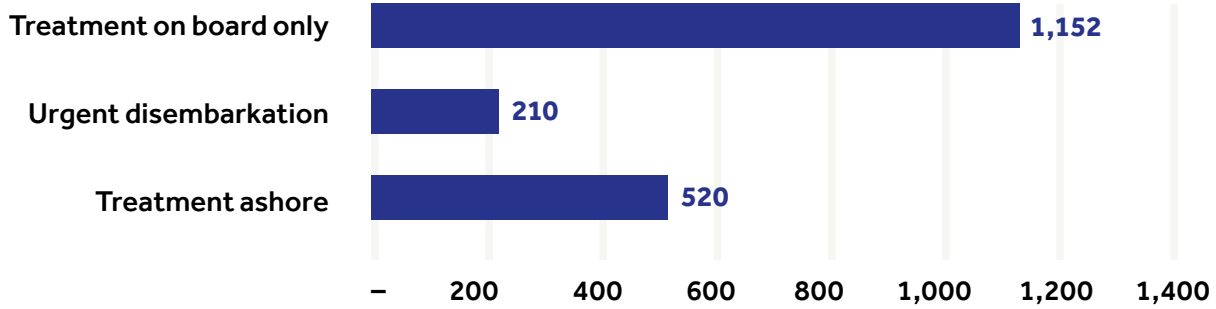
NORWAY: VESSEL TYPE



Note:

Of the total number of 2,053, vessel type was not recorded in 592 cases. 'Other' includes 'Offshore' which was not recorded as a separate category in 2023.

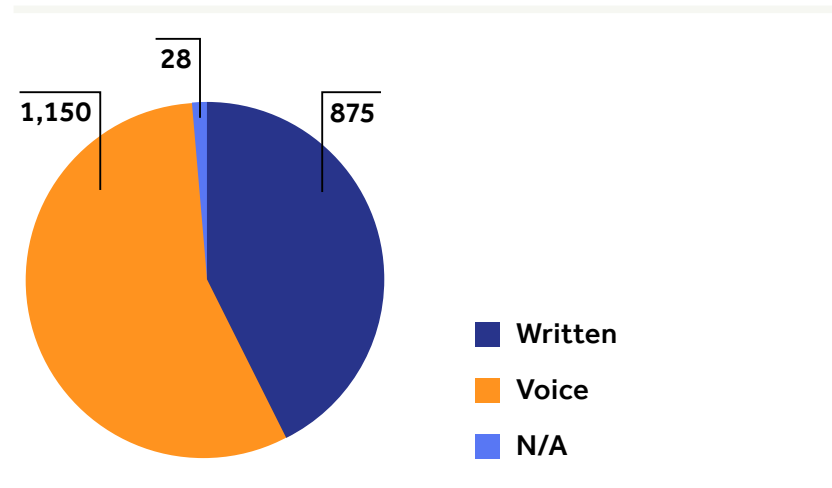
NORWAY: ACTION ADVISED



Note:

Of the total number of 2,053, action advised was not recorded in 171 cases.

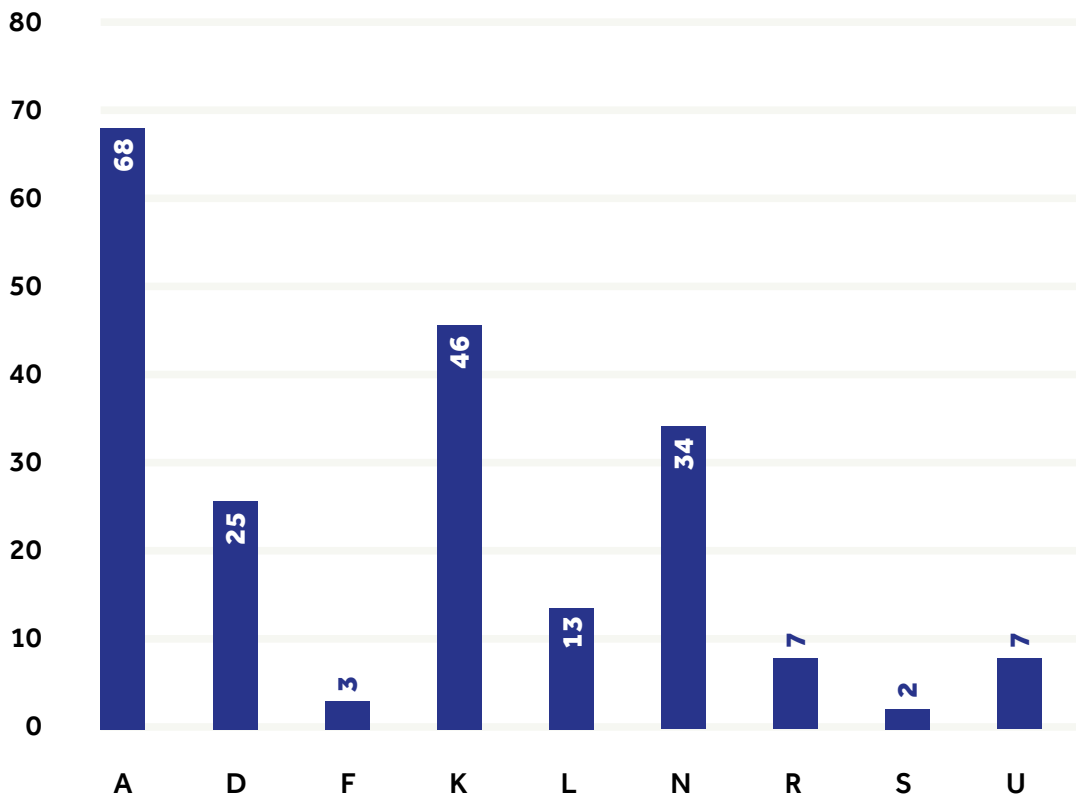
NORWAY: PRIMARY COMMUNICATION



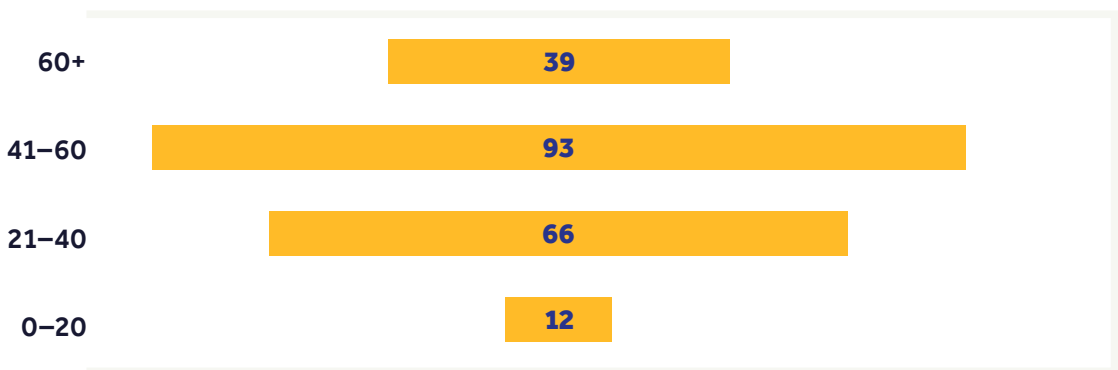
United Kingdom

The UK Telemedical Advisory Service for seafarers is delivered by the Emergency Departments of Aberdeen Royal Infirmary and the Queen Alexandra Hospital in Portsmouth. Calls are taken by the senior Emergency Medicine doctor on duty within the departments. The service is available to all seafarers on all ships worldwide. The majority of calls are from ships sailing in UK coastal waters.

UNITED KINGDOM: ICPC-2



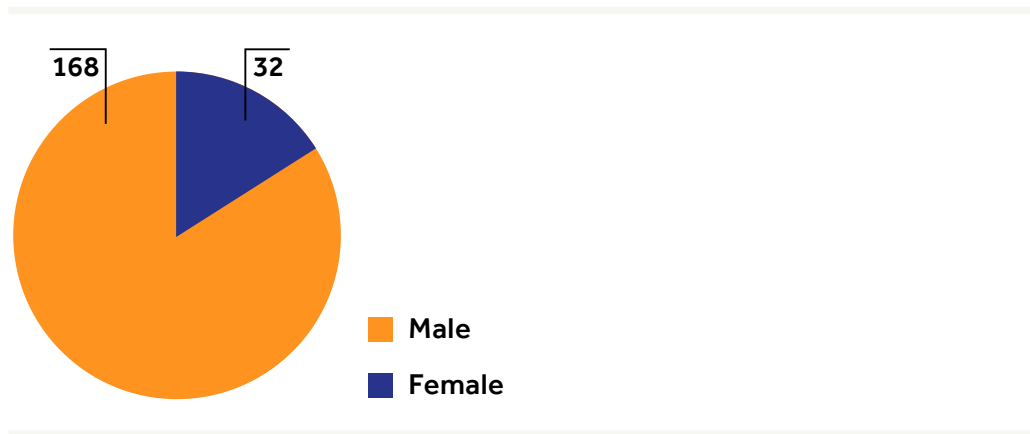
UNITED KINGDOM: AGE PROFILE



Note:

Of the total number of 219, age was not recorded in 9 cases.

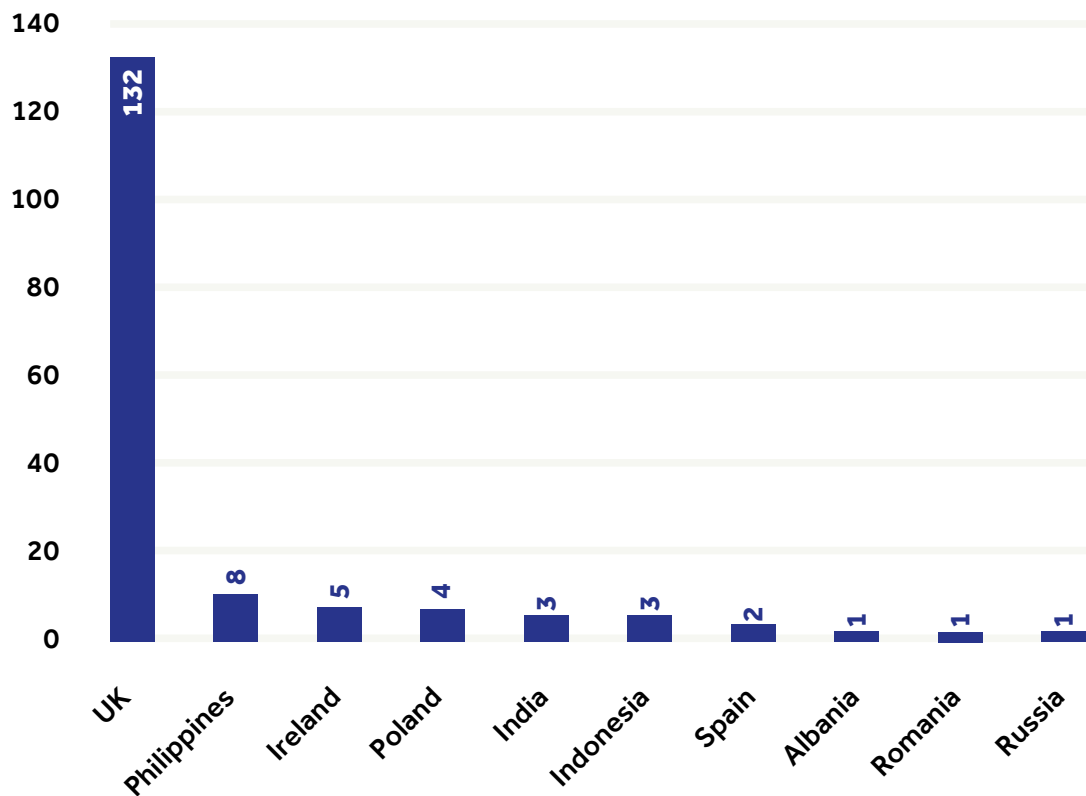
UNITED KINGDOM: GENDER



Note:

Of the total number of 219, gender was not recorded in 19 cases.

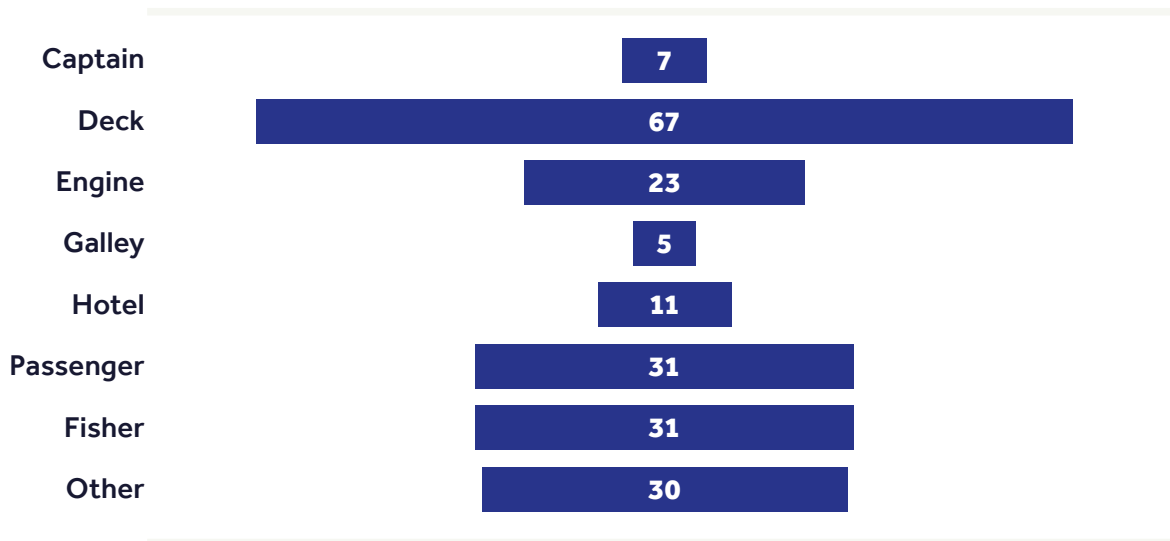
UNITED KINGDOM: NATIONALITY



Note:

Of the total number of 219, nationality was not recorded in 49 cases.

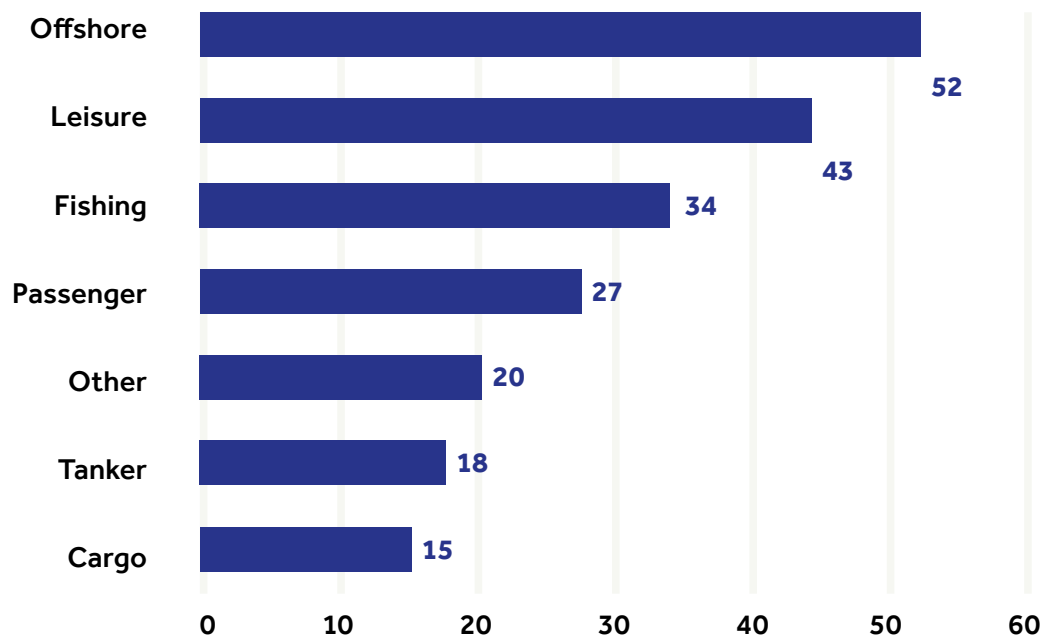
UNITED KINGDOM: RANK/LOCATION



Note:

Of the total number of 219, rank/location was not recorded in 14 cases.

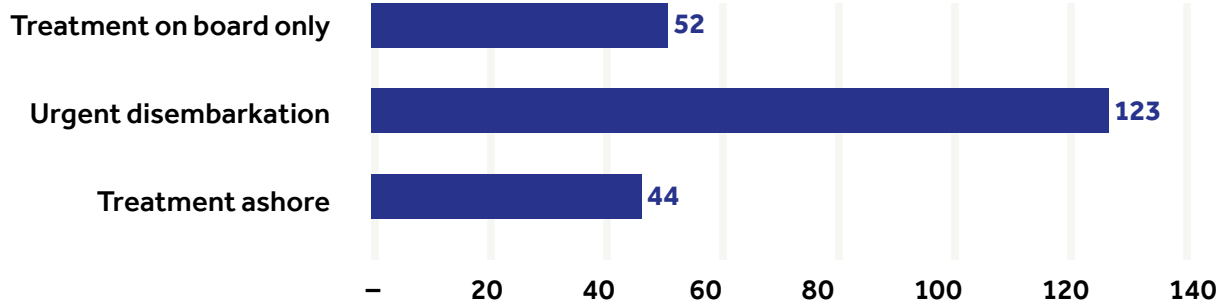
UNITED KINGDOM: VESSEL TYPE



Note:

Of the total number of 219, vessel type was not recorded in 10 cases.

UNITED KINGDOM: ACTION ADVISED



UNITED KINGDOM: PRIMARY COMMUNICATION

