

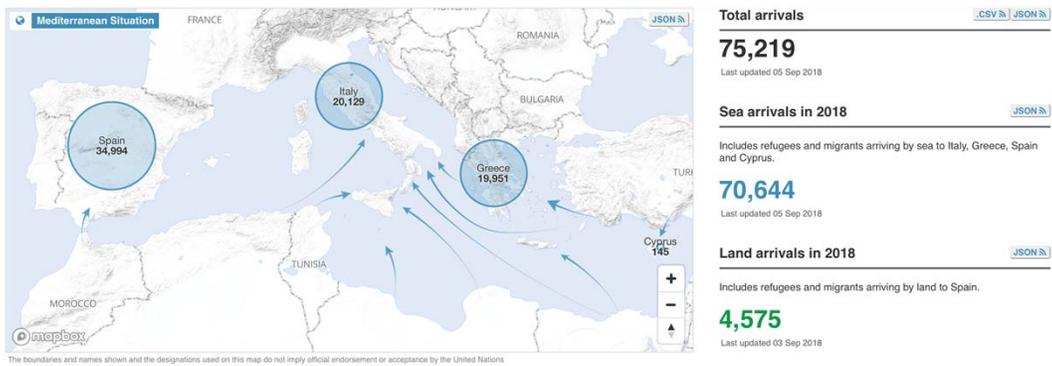


Search and Rescue Activities in the Mediterranean Sea

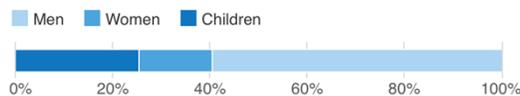
THE PERSPECTIVE OF A YOUNG EMERGENCY PHYSICIAN



MIGRATION TODAY



Demography of Mediterranean sea arrivals from January 2018



Source: UNHCR Data

MIGRATION TODAY

Most common nationalities of Mediterranean sea and land arrivals from January 2018

[.CSV](#) [JSON](#)

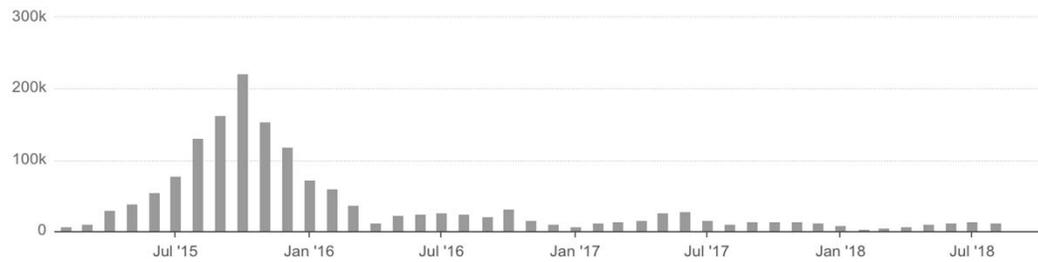
Country of origin	Source	Data date	Population
Syrian Arab Rep.		3 Sep 2018	13.2% 7,049
Others		31 Aug 2018	10.7% 5,696
Iraq		31 Aug 2018	8.6% 4,600
Guinea		31 Aug 2018	7.3% 3,890
Tunisia		31 Aug 2018	7.0% 3,729
Mali		31 Aug 2018	5.8% 3,116
Eritrea		31 Aug 2018	5.7% 3,027
Morocco		31 Aug 2018	5.5% 2,916
Other (Sub-Saharan Africa)		30 Jun 2018	4.8% 2,569
Afghanistan		31 Jul 2018	4.6% 2,444

Source: UNHCR Data

THE NEED OF A SAR OPERATION

Sea and land arrivals monthly

[.CSV](#) [JSON](#)



Source: UNHCR Data

THE NEED OF A SAR OPERATION

Dead and missing in 2018 (estimate)

[JSON](#)

1,540

Last updated 05 Sep 2018

Death rate

2,18%

Previous years	Sea arrivals	Dead and missing	
2017	172,301	3,139	1,82%
2016	362,753	5,096	1,40%
2015	1,015,078	3,771	0,37%
2014	216,054	3,538	1,63%



Source: UNHCR Data

A CROWDED SEA

ASSETTS INVOLVED

- Italian Coast Guard
- Maltese Coast Guard
- Libyan Coast Guard
- Operation Mare Nostrum (IT) 2013
- FRONTEX Triton (EU) 2014 -> Themis (EU) 2018
- Operation EuNavMedFor – Sophia (dal 2015)
- Merchant vessels
- NGO's vessels

SEARCH AND RESCUE AREA

- Italy
- Malta
- Lybia
- Tunisia

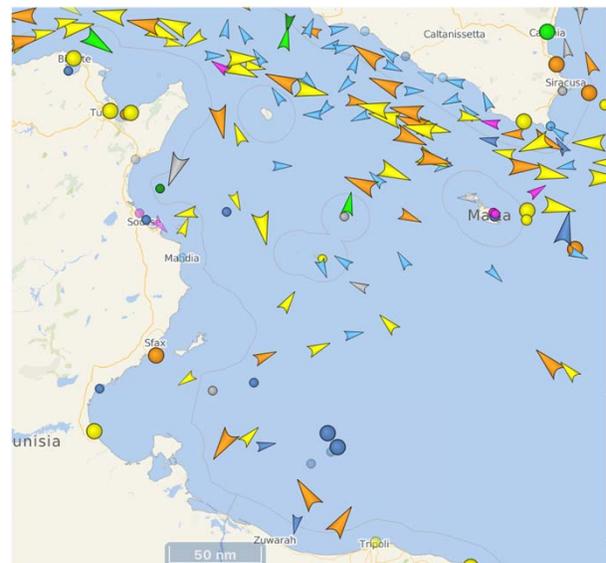
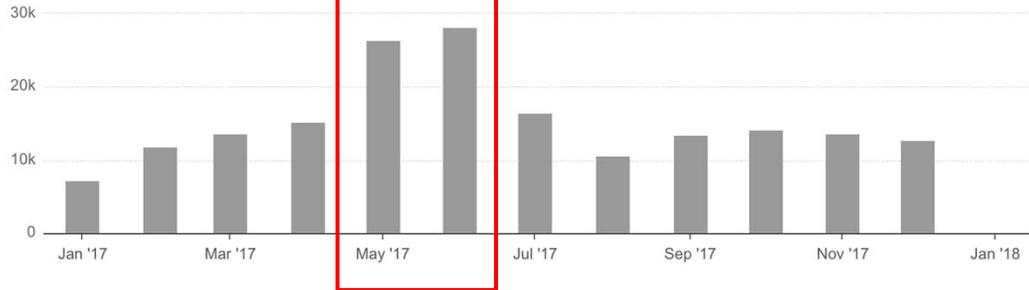


Photo: Vesselfinder.com

YEAR 2017

Sea and land arrivals monthly



Total arrivals by sea: 112.737 migrants
 Total SAR events: 1.116 missions
 Total MEDEVACs: 58 missions for 169 migrants

Source: UNHCR Data, Italian Coast Guard

YEAR 2017

MAY 2017

Number of Search and Rescue operations coordinated by the Italian Maritime Rescue Coordination Center (I.M.R.C.C.):

196

Number of persons rescued under the coordination of the I.M.R.C.C.:

22.698

	Persons
ITALIAN COAST GUARD	3.048
ITALIAN NAVY	970
FRONTEX - Triton Operation <small>(Italian Coast Guard, Guardia di Finanza and Carabinieri co-financed assets included)</small>	4.674
MERCHANT VESSELS	
COMMERCIAL	3.181
NGOs	9.299
FOREIGN MILITARY SHIPS	12
EUNAVFOR MED - Sophia Operation	1.465
GUARDIA DI FINANZA	42
CARABINIERI	7
TOTAL	22.698

JUNE 2017

Number of Search and Rescue operations coordinated by the Italian Maritime Rescue Coordination Center (I.M.R.C.C.):

202

Number of persons rescued under the coordination of the I.M.R.C.C.:

24.149

	Persons
ITALIAN COAST GUARD	2.937
ITALIAN NAVY	1.031
FRONTEX - Triton Operation <small>(Italian Coast Guard, Guardia di Finanza and Carabinieri co-financed assets included)</small>	3.710
MERCHANT VESSELS	
COMMERCIAL	1.385
NGOs	12.112
FOREIGN MILITARY SHIPS	759
EUNAVFOR MED - Sophia Operation	2.096
GUARDIA DI FINANZA	117
CARABINIERI	2
TOTAL	24.149

Source: Italian Coast Guard

GET ON BOARD



MSF - VOS Prudence

- An almost 3000 tons offshore support vessel, built in 2013
- Ruled by VROON crew, rented by Médecins Sans Frontières on 2017 for SAR purpose
- Customized by MSF with a small hospital and a structure adapted to cover up to 700 rescued migrants
- 2 RHIBs (Rigid Hull Inflatable Boat) for early support and rescues

MSF CREW

- 1 head of mission, 4 logistics (1 Wat-San), 2 RHIB pilots
- 1 psychologist, 1 humanitarian officer, 4 to 6 cultural mediators
- 1 doctor, 2 nurses, 1 midwife

HUMANITARIAN MEDIC



Humanitarian Medic is an innovative training program, designed and coordinated by CRIMEDIM in collaboration with **Médecins Sans Frontières** (Doctor Without Borders, Italian section).

The program is restricted to **medical doctors** in their final years of training or residency program in Anaesthesia and Critical Care Medicine, Emergency Medicine and Paediatrics, from any university all over the world.

The aim of the training program is to provide residents with the necessary **knowledge, skills** and **attitudes** to proficiently participate to international disaster responses and humanitarian health programs.

Humanitarian Medic has three specific consequential phases: **distance learning** through an e-learning platform, followed by a **Residential course** in Novara and a final **Apprenticeship** in the field with Médecins Sans Frontières.

RESCUE



RHIB DEPARTURE



INTERCEPTION



APPROACH

RESCUE



PULLING CLOSE

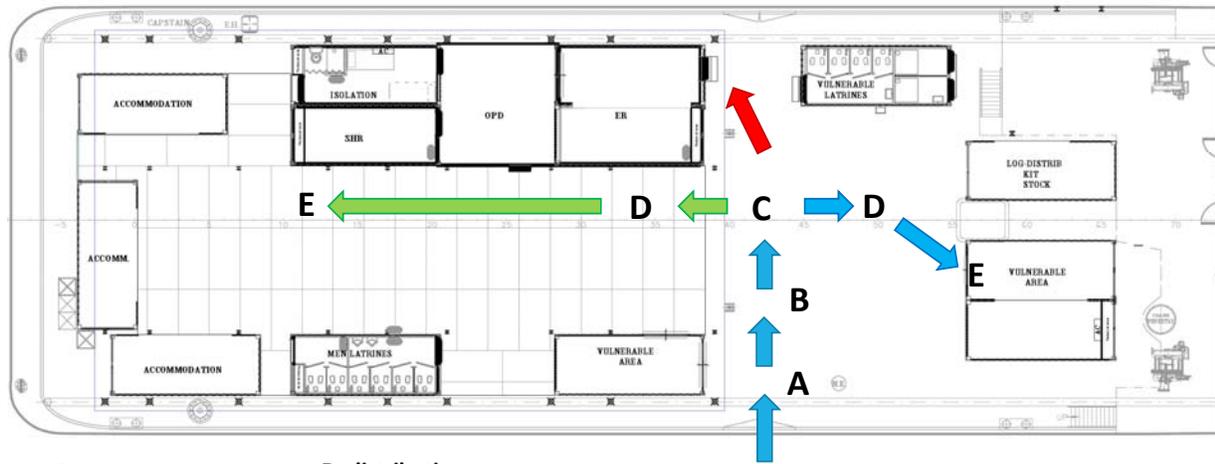


RECOVERY



RESCUE

RESCUE



A: rescue

D: distribution

B: security check

E: sitting

C: medical triage

MEDICAL ASSISTANCE



Medical triage

Performed by the Nurse and the Doctor based on START algorithm. If needed Doctor can follow a critical case into the hospital, the Nurse keep going alone.

First Assistance on the deck

People not able to walk, with injuries or wide burns or with evident needs stops aside the hospital, where the Nurse can check their vital signs and temperature, do first medications and cover them.

Emergencies on boats

If real emergency occurs on a boat, doctor or nurse can get down on the boat and stabilize the patients before evacuate him with the help of logistics.

MEDICAL ASSISTANCE



Medical Emergency

Real emergencies are carried directly the Emergency Room inside the hospital, where Doctor and Nurse can treat the patient following the needs.

Burns

Chemical burns with gasoline and salt water were particularly diffused among migrants. Those burns were immediately washed in a special area after boarding, then clothes were removed and wounds treated.

Contingency plan – mass casualty

In case of a mass casualty event (i.e. a boat capsizing) a special contingency plan was elaborated and tested during the journey to the operation zone.

HOSPITAL



Emergency Room

A complete Emergency Room with two positions on stretchers was set up. Those were fully equipped with monitors, oxygen concentrator and a chart with all common use drugs in emergency.

Fluids, IV lines, IO equipment, trauma equipment and even a ventilator were available in the ER.

All the equipment was stored in plastic boxes with clear indications, blocked with ropes to avoid them from falling during the trip.

Emergency protocols were printed and pointed on the walls, in order to facilitate the clinicians to take decisions in stressful situations.

A 24/24h shift was planned to cover the ER if patients were recovered.

HOSPITAL



Outpatient department

The OPD was a large room contiguous to the emergency room, where doctor and nurse care about secondary treatment, medication or wound care or just medical consultation during the trip back to Italy. The service was open only on daytime.

Gynaecological/Obstetric room

A dedicated room to visit the pregnant (or suspected so) women was set up aside the OPD. The room permitted the Midwife to check about the health conditions of those girls and of the new-borns. A special set for delivery was always ready in case of need.



Isolation room

In case of suspected infective disease, a special isolation room was set up to protect and isolate them and avoid the spread of potentially severe illness.

OTHERS MEDICAL ASSETS



Round tour on the deck

Twice a day the nurse took a round tour on the deck to check general medical conditions, to invite people who could need to consultations and to be sure everyone had access to medical care.

Vulnerable container

Two containers was prepared to receive and protect families with young children, pregnant women and other vulnerable people, while other migrants should sleep on the deck.

Medical container

Injured, wounded, reduced mobility or burned people were permitted to stay in a third dedicated container on the deck, a nurse check their condition twice a day during his round tour.

MEDEVAC



Request

In case of time-dependent emergencies, a MEDEVAC could be requested to the Italian Coast Guard Coordination Centre. Before to authorize the MEDEVAC and to decide the means of evacuation, the case has to be discussed with a Medical Doctor on duty 24/24h in the coordination centre.

By helicopter

For real time-dependent emergencies, Authorities could allow the evacuation with helicopter. With no space to land, evacuation are made by hovering and winch.

By boat

For less urgent evacuation, a Coast Guard fast boat could approach the vessel and transfer the patient in few hours to an hospital on the shore.

DATA



1 rescue as example: SAR event 24-25/05/2017

N° of rescues: 13 boats (11 rubber boat + 2 wood boat)

N° of people: 1520 (1268 M + 207 W + 45 C)

Dead bodies: 2

Pregnant women: 20 confirmed

Medical consultations: 86

Medico-legal certificates: 8

MEDEVAC: 4 patients

Urgent referral to hospital after disembarkation: 36 patients

Scabies cases identified: 37

DATA



1 rescue as example: SAR event 24-25/05/2017

4 MEDEVACs (all by boat):

- suspected femur fracture, complicated leg infection, respiratory arrest in inhalation, epileptic seizure

36 URGENT REFERRAL

- 4 suspected TB
- 4 bloody diarrhoea
- 3 traumatic injury
- 5 burns
- 20 pregnant (2 suspected abortion)

DATA



1 rescue as example: SAR event 24-25/05/2017

CONSULTATIONS

- Gynaecology/Obstetrics: 30%
- Cutaneous disease: 11%
- Burns: 8%
- Urinary infections: 6%
- Ancient trauma: 6%
- Trauma: 5%
- Others: 34% (fever, diarrhoea, head hake, stomach hake, motion sickness)

VULNERABLES



- Pregnant women
- Children
- Unaccompanied minor
- Elderly
- Sick and injured
- Psychological disease
- Sexual Violence and tortured

were identified and protected during the trip, than referred to dedicated Authorities once on shore.

Medico Legal Certificate were released for sexual violence and signs of torture, if agreed by the patient

DEAD BODY MANAGEMENT



- Death certification
- Collection of the body
- Collection and storage of personal items
- Photos
- Body bag with ID tag
- Ice cell
- Identification of possible family member on board
- Communication with Authorities before landing
- Police and Health Authority authorisation for disembarkation

CONCLUSIONS

- Strong commitment and motivation
- Incredible responsibility
- Stressful work
- Huge workload
- Management of different emergencies than usual
- Difficult human experience
- Good ER asset
- Particular environment
- Teamwork is, as usual, the key



QUESTIONS?

THANK YOU FOR
YOUR ATTENTION

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