



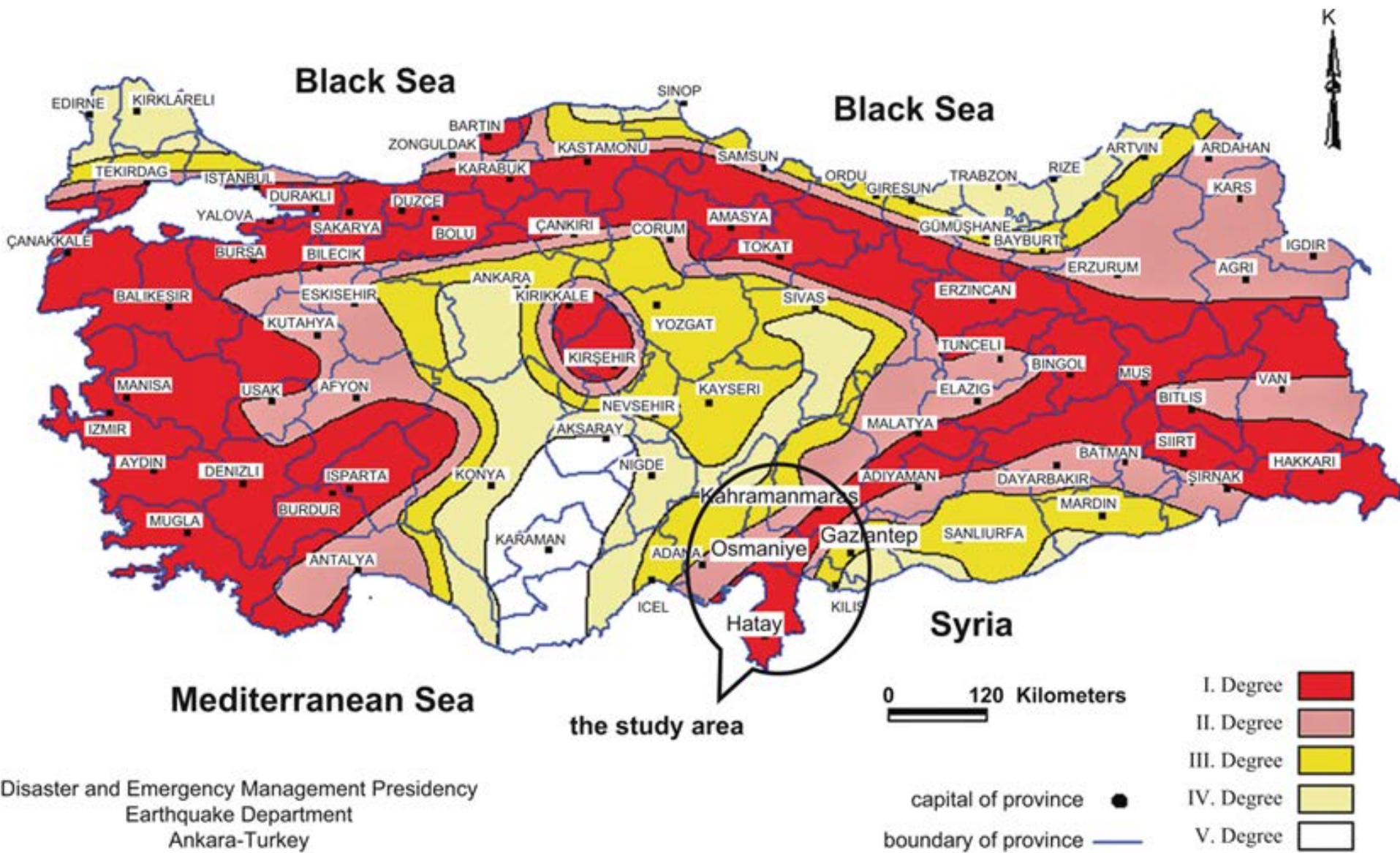
HEALTH ACTIVITIES IN DISASTERS

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Izmir Provincial Health Directorate
Director of Disaster Medicine Department



75 million population
81 provinces

- Turkey is situated in one of the most seismically active regions in the world.
- Active fault zones are found in two thirds of the country where 70% of the population live.



Source: Republic of Turkey Ministry of Public Works and Settlement (1996). "Analysis of Earthquake Zones with Geographical Information System", prepared by B. Özmen, M. Nurlu and H. Güler (1997)

Disasters in Turkey are mostly associated with natural hazards:

Earthquakes

Forest fires

Droughts

Heavy rain and floods

Avalanches

Rock falls

Wind and snowstorms

Landslides

Heat waves and fog

- In the last century;

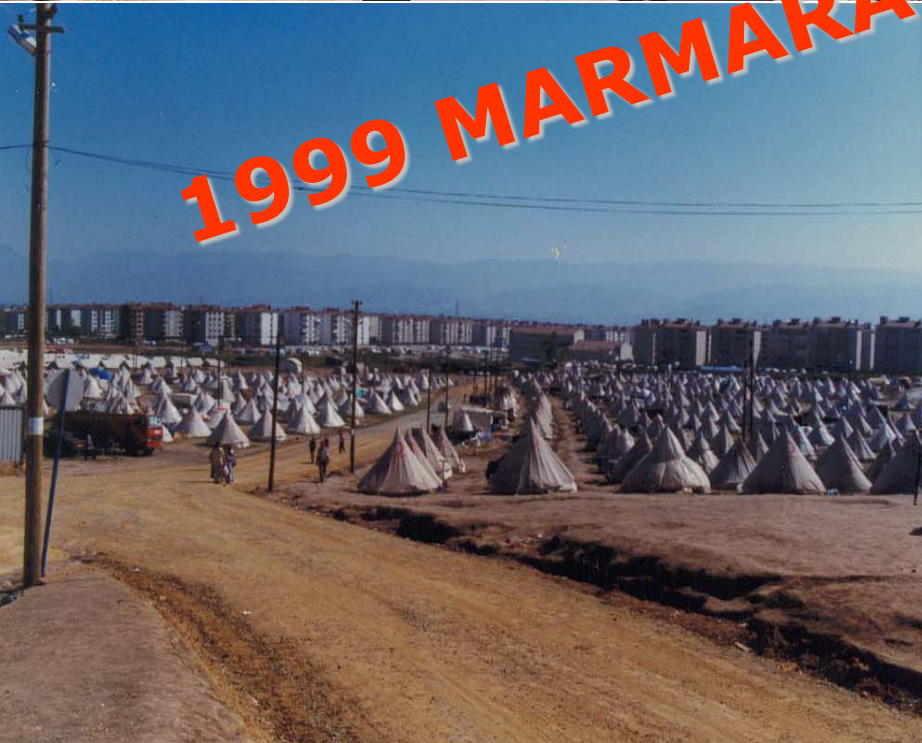
>100 major earthquakes

> 6 (M6) on the Richter Scale have affected Turkey

90 000 deaths

115 000 injured

> 500 000 damaged buildings



1999 MARMARA

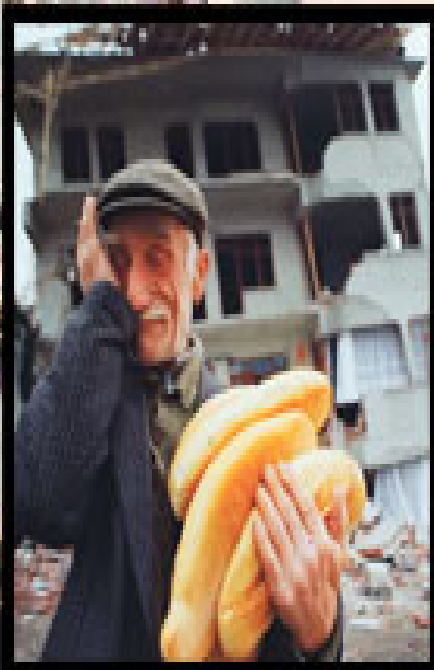
EARTHQUAKE

17th August 99

- Magnitude 7.4 on the Richter scale
- 17 480 deaths,
- 43 953 wounded and
- 200 000 homeless.

Serious public health problems such as :

- difficulties in the provision of safe water,
- sewage problems,
- housing difficulties,
- those related to the collection of wastage

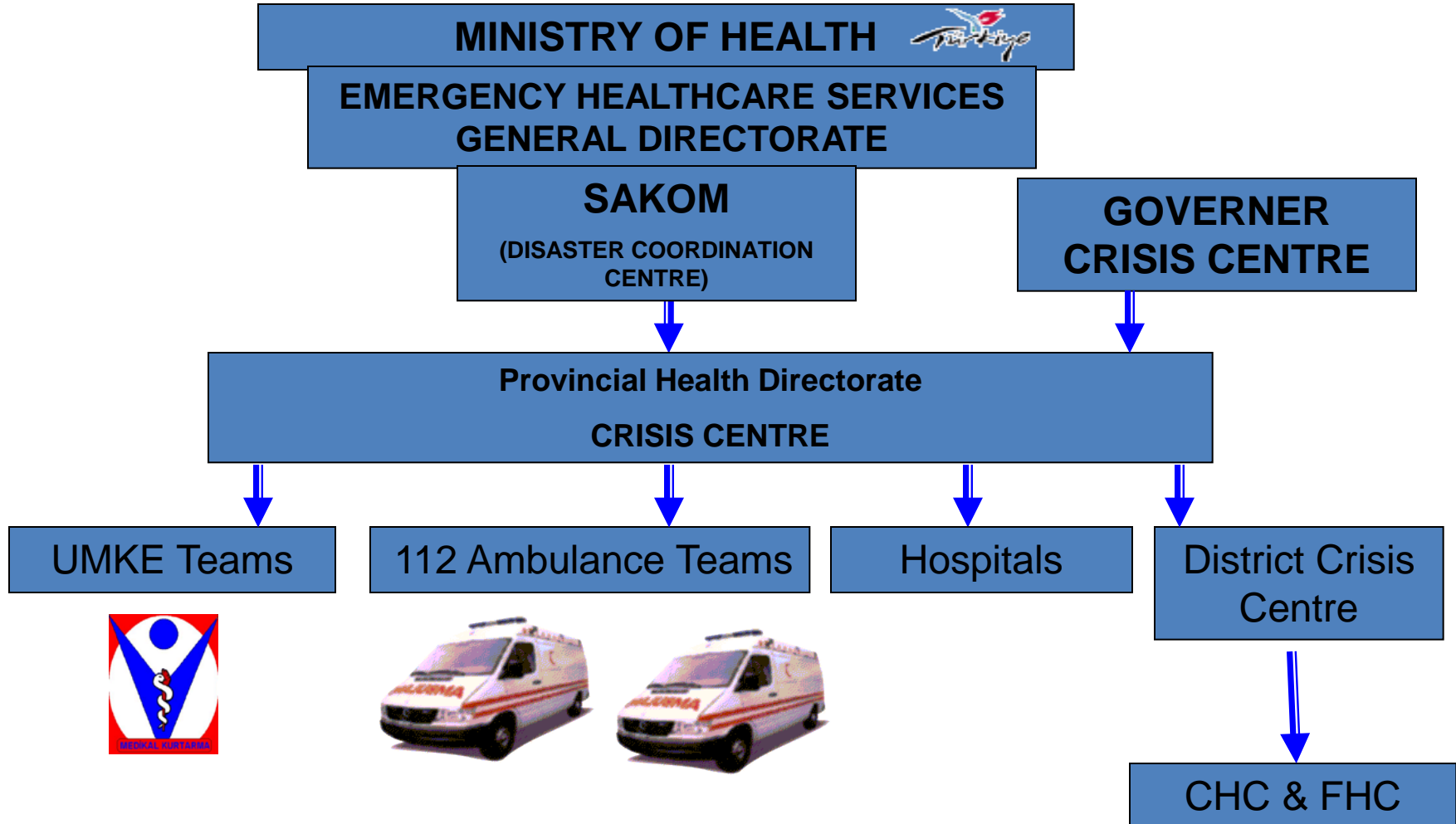


- There was no mobile hospital
- No burn center and no trauma center,
- The number of hospital beds, and that of health personnel were not sufficient to meet the needs,
- Intensive care, and hemodialysis services, as well as the supply of blood were quite inadequate.



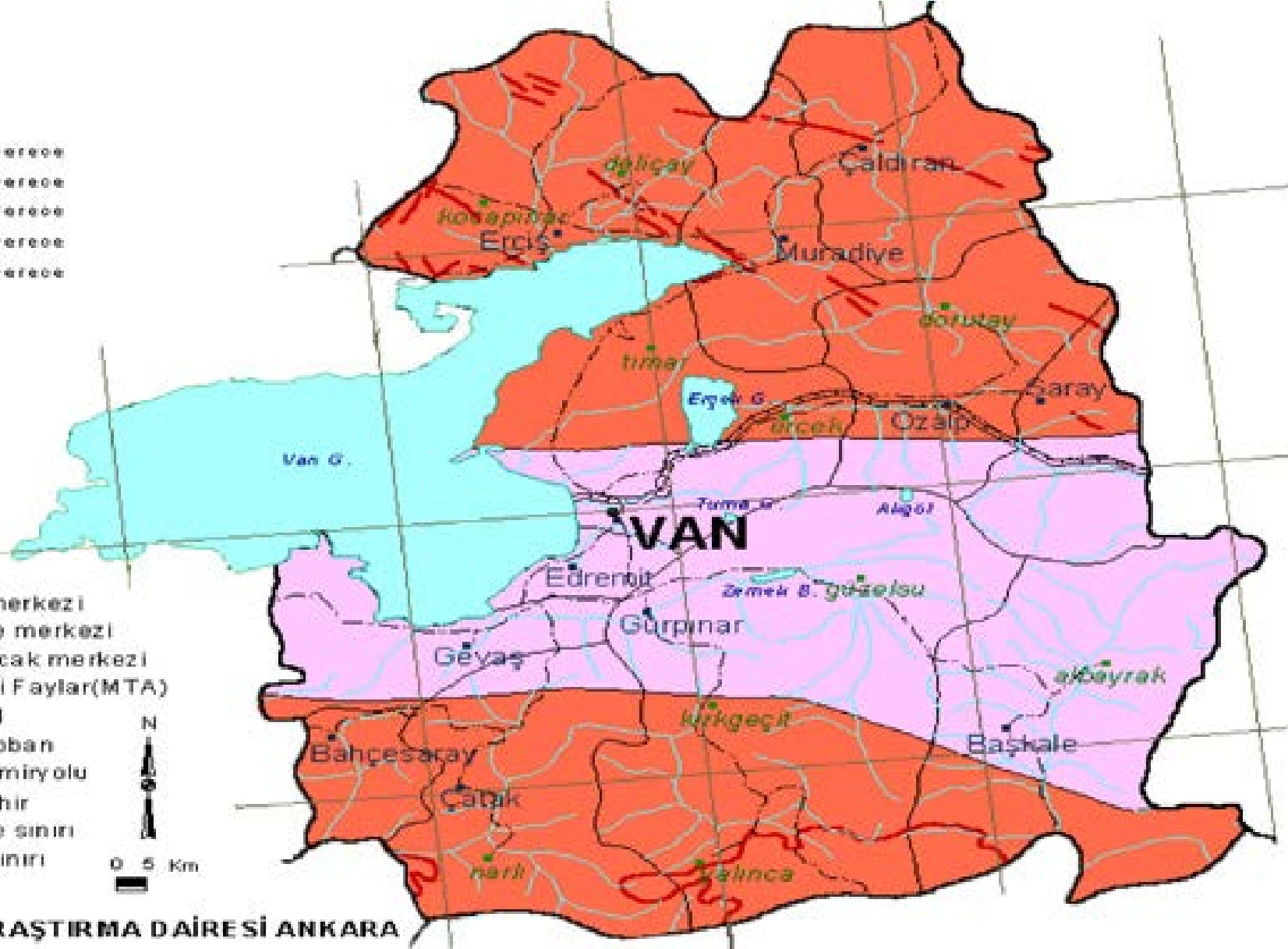


DISASTER MANAGEMENT



- 1.Derece
- 2.Derece
- 3.Derece
- 4.Derece
- 5.Derece

- İl merkezi
- İlçe merkezi
- Bucak merkezi
- Diri Faylar(MTA)
- Yol
- Otoban
- Demiryolu
- Nehir
- İlçe sınırı
- İl sınırı



DEPREM ARAŞTIRMA DAİRESİ ANKARA

Seismic risk in Van Province

- 23 October 2011
 - M 7.2
 - Erciş and Van Cities
 - 40 seconds
-
- 9 November 2011, an earthquake of M5.7 hit again

- 28 532 damaged buildings
- 650 000 people affected

- 644 deaths
- > 4000 injuries
- 222 rescued alive

Distribution of 1128 aftershocks of >M3 as of 2 November 2011



Van Province health facilities affected by earthquakes of 23 October and 9 November 2011

City (and villages)	Total numbers of health facilities (all categories)	Numbers of damaged health facilities			Proportion of Van Province health facilities affected (% of total)
		Destroyed or heavily damaged	Partially damaged	Total number damaged	
Van City	5 hospitals	2 hospitals	2 hospitals	4 hospitals	80%
	23 FHC	3 FHC	2 FHC	5 FHC	22%
Erciş City	1 hospital		1 hospital	1 hospital	100%
	12 FHC	3 FHC	2 FHC	2 FHC	42%

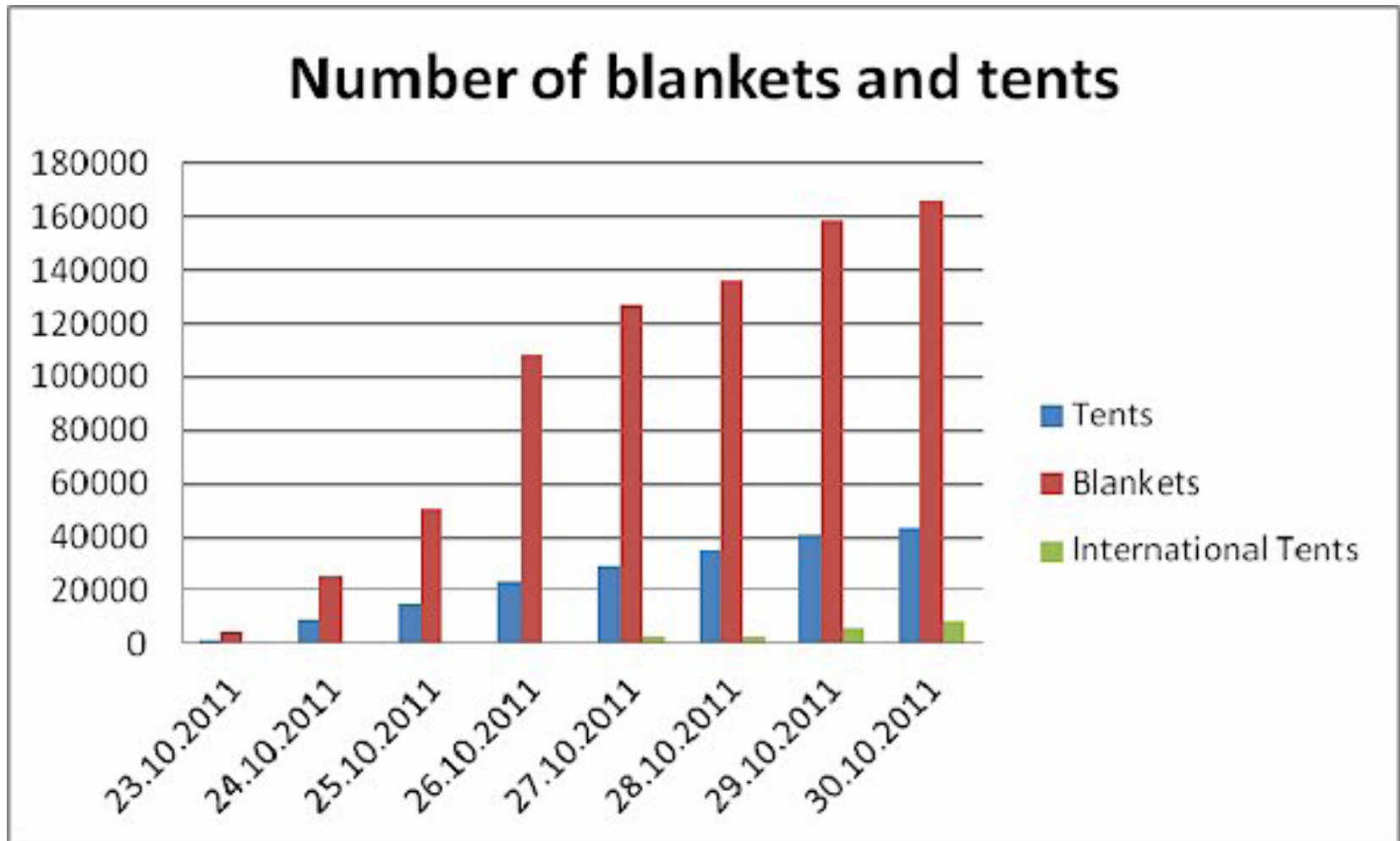
Note: FHC = family health centre.

Source: Ministry of Health of Turkey

Van earthquake response: mobile hospitals under heavy snow at night



Number of blankets and tents provided during the first eight days after the Van earthquake, 23 October 2011



Numbers of personnel and vehicles deployed to rescue operations from other provinces between 23 October 2011 and 19 February 2012

Personnel/vehicles	Total numbers deployed	Numbers remaining as of 19 February 2012
Overall personnel	5 902*	145
Vehicles of the national medical rescue team	70	0
Fully equipped ambulances	333	29
Mobile dental clinics	4	3
Specialist physicians	1 089	0
General practitioners	596	9
Other health workers	4 217	126

**Including 1488 UMKE personnel.*

Source: Ministry of Health of Turkey

Goods and services deployed to the emergency areas as of 28 November 2011

Area	Items deployed
Search and rescue	5267 search-and-rescue personnel 34 search dogs
Shelter	72 597 tents (28 140 of which were through international donation) 480 communal tents (28 of which were through international donation) 200 tarpaulins 260 prefabricated houses (200 of which were through international donation) 2711 containers (128 of which were through international donation) 3794 Mevlana houses 151 toilet/shower containers
Non-food items	335 019 blankets (94 470 of which were through international donation) 1940 duvets 1825 mattresses (1000 of which were through international donation) 3149 kitchen sets 25 315 heaters (684 of which were through international donation) 6192 sleeping bags 1536 folding beds (536 of which were through international donation)
Health	2976 medical personnel 11 mobile hospitals 183 ambulances 18 air ambulances Equipment: 1 mobile oven 732 pieces of construction machinery 79 projectors 146 generators (40 of which were through international donation)





AA

UMKE searching for survivors under the debris

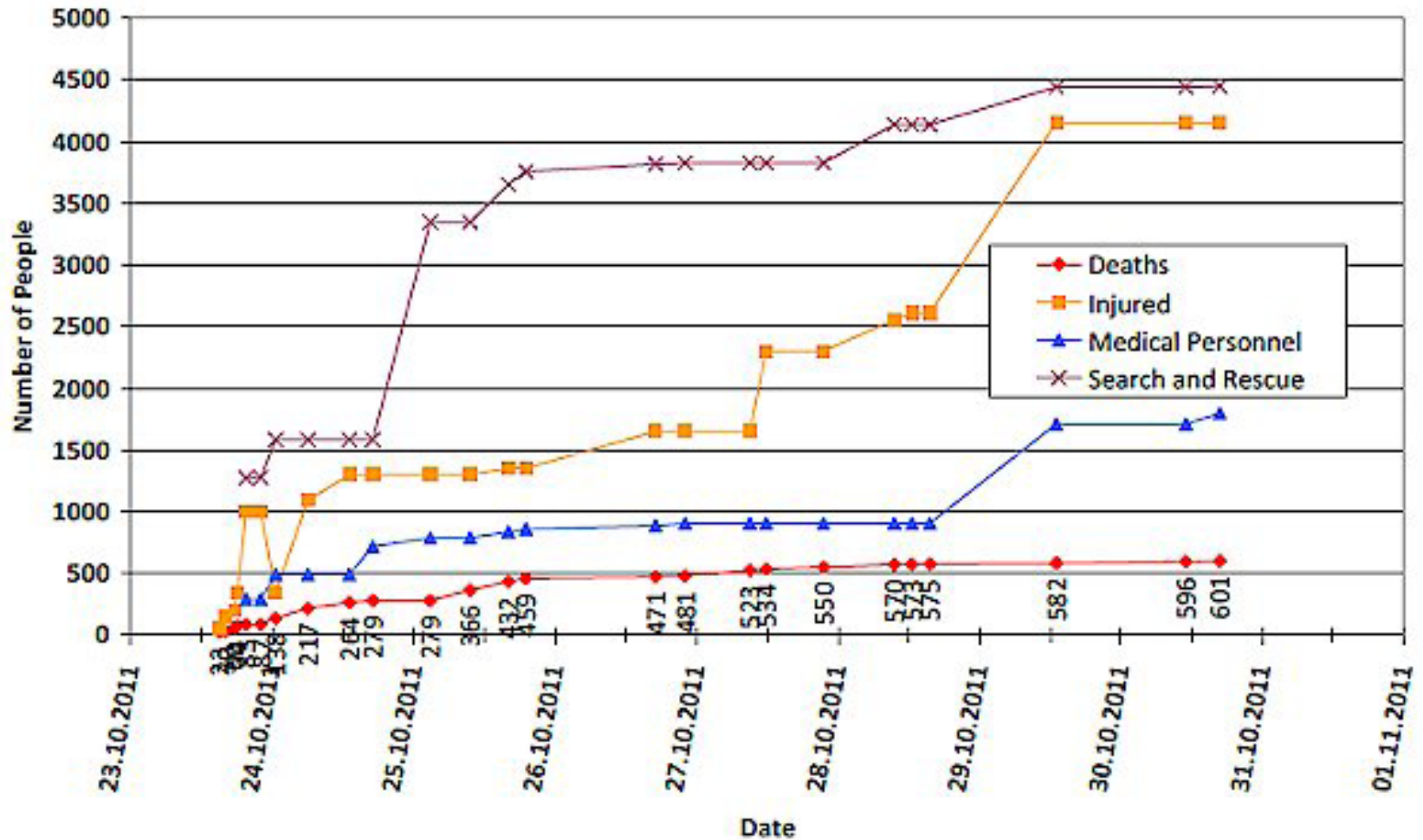


Baby Azra, 14 days old, safe in the arms of a member of UMKE after 46 hours under debris



Source: Adem Altan, Turkey

Numbers of deaths and injuries and numbers of medical and search-and-rescue personnel in the first eight days after the Van earthquake on 23 October 2011



Source: Comparing the current impact of the Van Earthquake to past earthquakes in Eastern Turkey. CEDIM Forensic Earthquake Analysis Group – Report #4. Status: Wednesday November 2nd, 2011, 18:00 Central European Time. Karlsruhe, Center for Disaster Management and Risk Reduction Technology, 2011

UMKE playing with children during psychosocial activities





GERÇEK DOST
Japonya'dan yardım için geldi enkaz altında kaldı



**112 AMBULANCE SERVICE, EMERGENCY and DISASTER MEDICINE DEPARTMENTS
(TRAINING CENTRE)**









AES

AMBULANS EKİPLERİ
STANDARDİZASYON
EĞİTİMİ



TRAININGS

1- Medical Emergency Management

2- Hospital Disaster Planning

3- Disaster Medicine

4- UMKE Training Programme

IZMIR PROVINCIAL HEALTHCARE FACILITIES DISASTER PREPAREDNESS PROGRAMME

MEDICAL EMERGENCY MANAGEMENT TRAINING



- December 2007
- Healthcare managers
- 2 days
- 5 times
- 112 participants
- New Concepts

MEDICAL EMERGENCY MANAGEMENT TRAINING

SOME TOPICS:

- An Operational System Description for Healthcare Systems
- Program Development in Medical Emergency Management
- Medical Emergency Management Operation Plan
- Hazard-Vulnerability/Business Impact Analysis
- Medical Surge Capacity and Capability Planning
- Organisational Learning and Evaluation
- Tabletop Exercise

IZMIR PROVINCIAL HEALTHCARE FACILITIES DISASTER PREPAREDNESS PROGRAMME



HOSPITAL DISASTER PLANNING TRAINING



- May 2008
- 47 Hospitals
- 130 participants
- 3 days

HOSPITAL DISASTER PLANNING TRAINING

SOME TOPICS

- Risk Analysis
- Expected Pathologies
- Triage
- Reducing Non-Structural Hazards
- Hospital Evacuation
- Command Staff of HICS
- Personal Protective Equipment (PPE) and Decontamination
- Tabletop Exercise

IZMIR PROVINCIAL HEALTHCARE FACILITIES DISASTER PREPAREDNESS PROGRAMME



DISASTER MEDICINE TRAINING



- September 2008
- First Responders
- 5 days
- Civil Defense, UMKE
- CBRN-E, MCI Scenario
- Triage, Incident Scene Management

DISASTER MEDICINE TRAINING

SOME TOPICS

- Disaster Epidemiology
- Communication in Disasters
- Incident Scene Management (Practice)
- Mental Health in Disasters
- CBRN-E Incidents
- Mass Casualty Incidents
- CBRN-E Drill (Civil Defence Search and Rescue Team)





DİKKAT !
ELEKTRONİK
CİHAZ











MUHAREBE ARAMA KURTARMA
EĞİTİM KOMUTANLIĞI



Izmir 112 Ambulance Service

- 1 Dispatch Center
- 91 ambulance stations,
- 104 ambulances
- 2 newborn ambulances
- 6 motorcycle teams
- 1 Helicopter ambulance
- 1 Air ambulance
- 163.926 cases (2011)
- 1086 health professionals work

112 DISPATCH CENTER

- 112 software and database
- Voice recording
- GPS and navigation system
- Online connection with Hospitals
- Radio communication
- GSM
- Satellite phone
- Communication Network (Ambulance stations, Hospitals, Fire Department, Police, Civil Defence, Coast Guard, Military SAR Teams, HEMS, Provincial Crisis Center)

AMBULANCES



Snow Track Ambulances





- 4 patient capacity
- MCI and Disasters
- Long distance transfer





AIR AMBULANCE



Iran Bam EARTHQUAKE

26 DECEMBER 2003



PAKISTAN EARTHQUAKE

08 OCTOBER 2005



7.6 Magnitude

79 000 Dead

106 000 Wounded



2010 HAITI EARTHQUAKE



INDONESIA EARTHQUAKE

28 March 2005



JAPAN TOHOKU EARTHQUAKE

11 March 2011



Konya Zumrut Apartment



02 February 2004
92 Death

Iran Bam EARTHQUAKE





Çeşme Limanı

800 mil

Bingazi

Misratah Limanı
Misratah, Libya

LIBYA

LIBYA EVACUATION OPERATION 05 April 2011

© 2011 Google
Data SIO, NOAA, U.S. Navy, NGA, GEBCO
© 2011 Cnes/Spot Image
© 2011 Tele Atlas

© 2011 Google

32°09'44.47"K 21°39'21.99"D yükseklik 39 m

Göz hizası 2098.78 km

298 Libyan patients and wounded, 180 companions, 750 UMKE and 112 personnel, 169 ambulances, 3 helicopters and 1 aircraft ambulance

Evacuation time: 3 hours





SOMALIA FAMINE



Thank You!

