

GREEN PARK PENDIK CONVENTION CENTER
8 - 11 October 2017

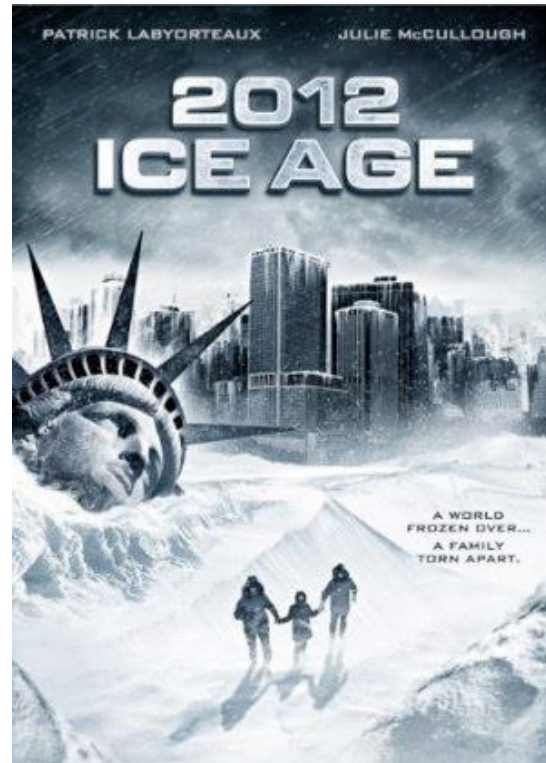
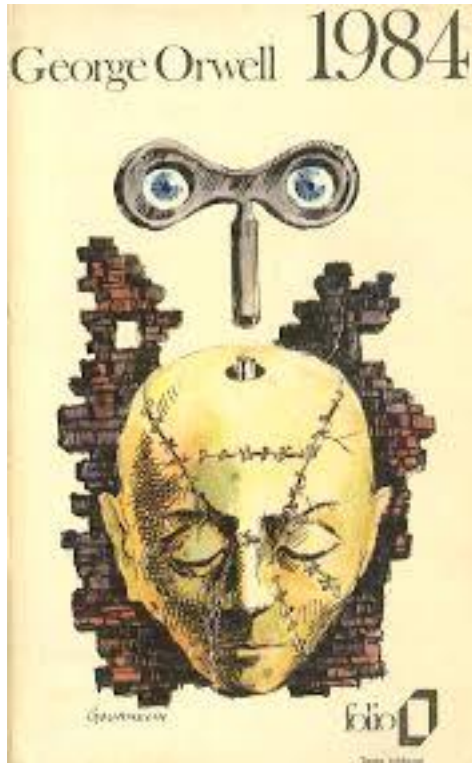
The end of Humanity : is it people ? Man-made Disaster



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No Conflicts of Interest



Man made \neq Natural Disaster

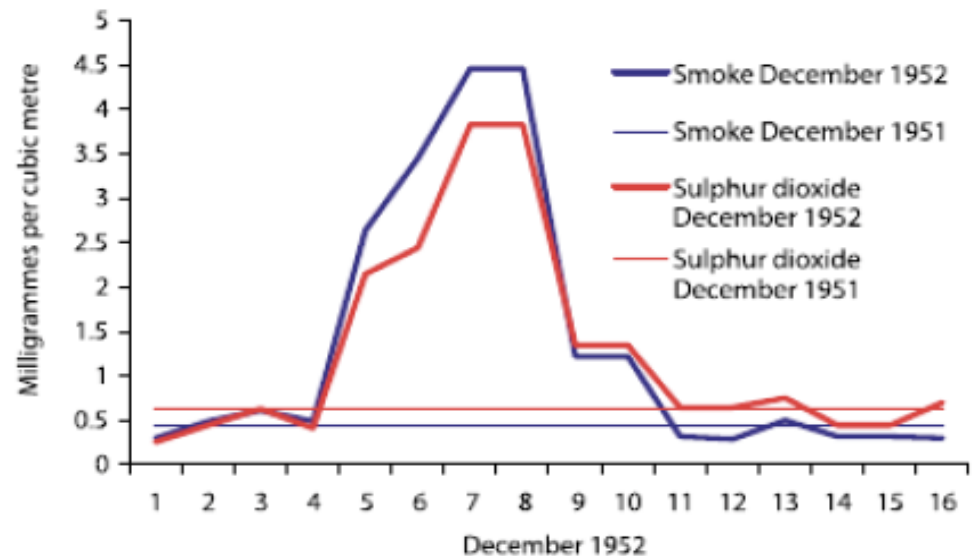
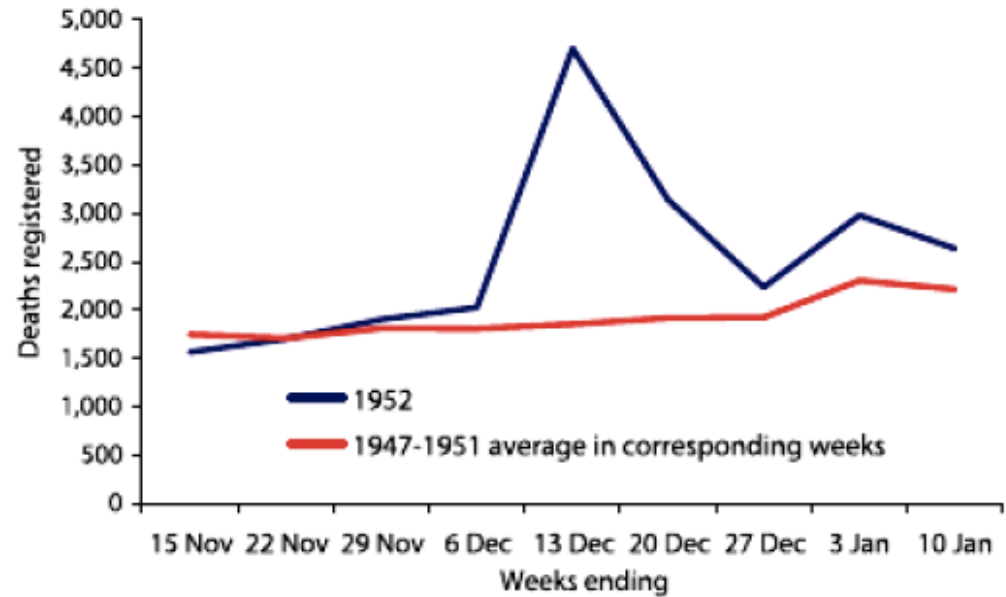
A disaster event caused directly and principally by one or more identifiable deliberate or negligent human actions.



The Great Smog of London 5-8 December 1952



Respiratory diseases
60 % in deaths in end 13 December
76 % in the following week.



Minamata Disease 1956



humans who ingested fish and shellfish contaminated by methylmercury (MeHg)
discharged in waste water from a chemical plant (Chisso Co. Ltd.)
For the past 40 years, of the 2252 patients who have been officially recognized, 1043 died

Profiles of the Most Common Man Made Disasters



Oil & Chemical Spill



Economic Collapse



Nuclear Accident



Terrorist Attack



Power Outage



Dam Failure



Biological Threat



War



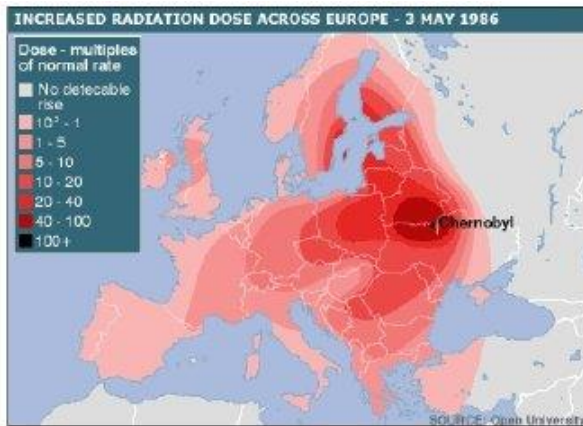
Chemical Threat



1976 Seveso, Italy (dioxins)



1984 Bophal (Methyl isocyanate gas)



1986 Chernobyl (Nuclear Radiation)



2011 Fukushima (Earthquake + nuclear disaster)



1978 Amoco Cadiz (Oil tanker)



1984 Mexico (Boiling Liquid Expanding Vapor Explosion)

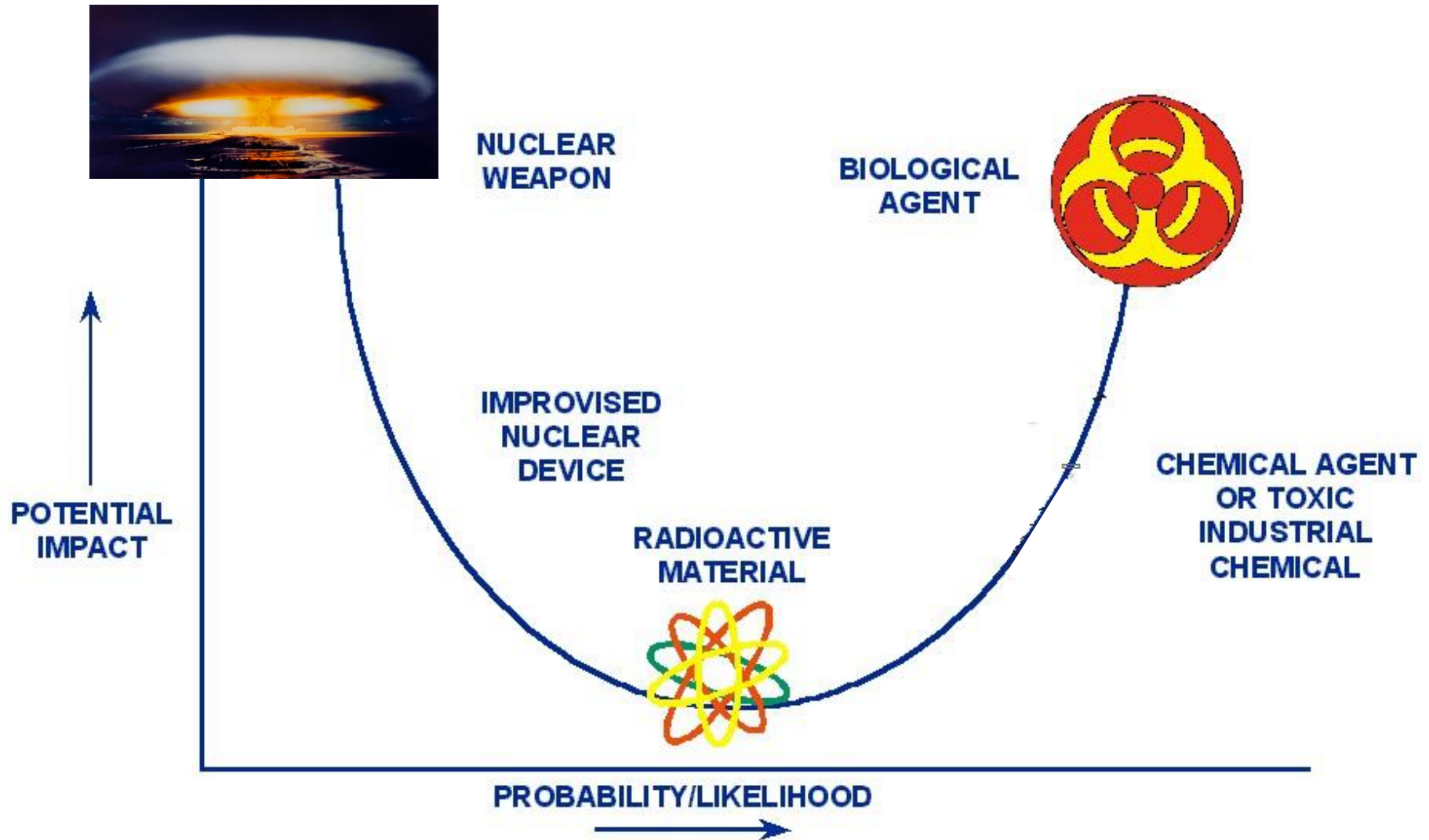


2010 Deep Water horizon (Oil)



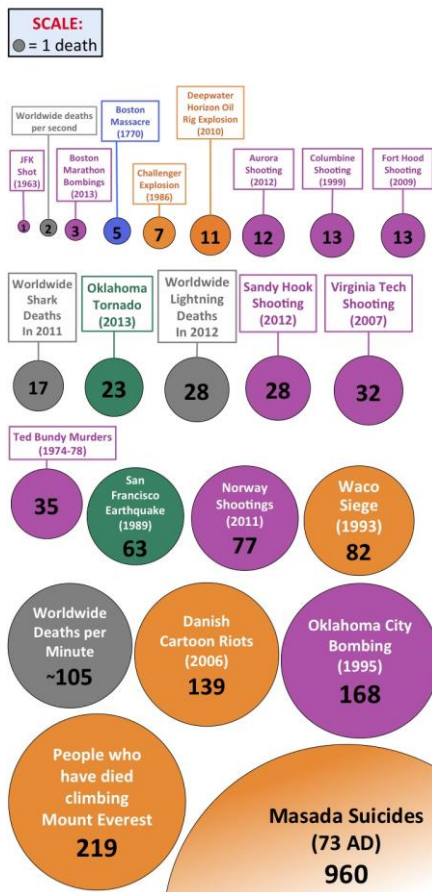
2009 Puerto Rico (Fuel storage)

What and who 's next ??



War ?





Our World
in Data

Global deaths in conflicts since the year 1400

● Each circle represents one conflict. [Data from the *Conflict Catalog* (1400-2000)]

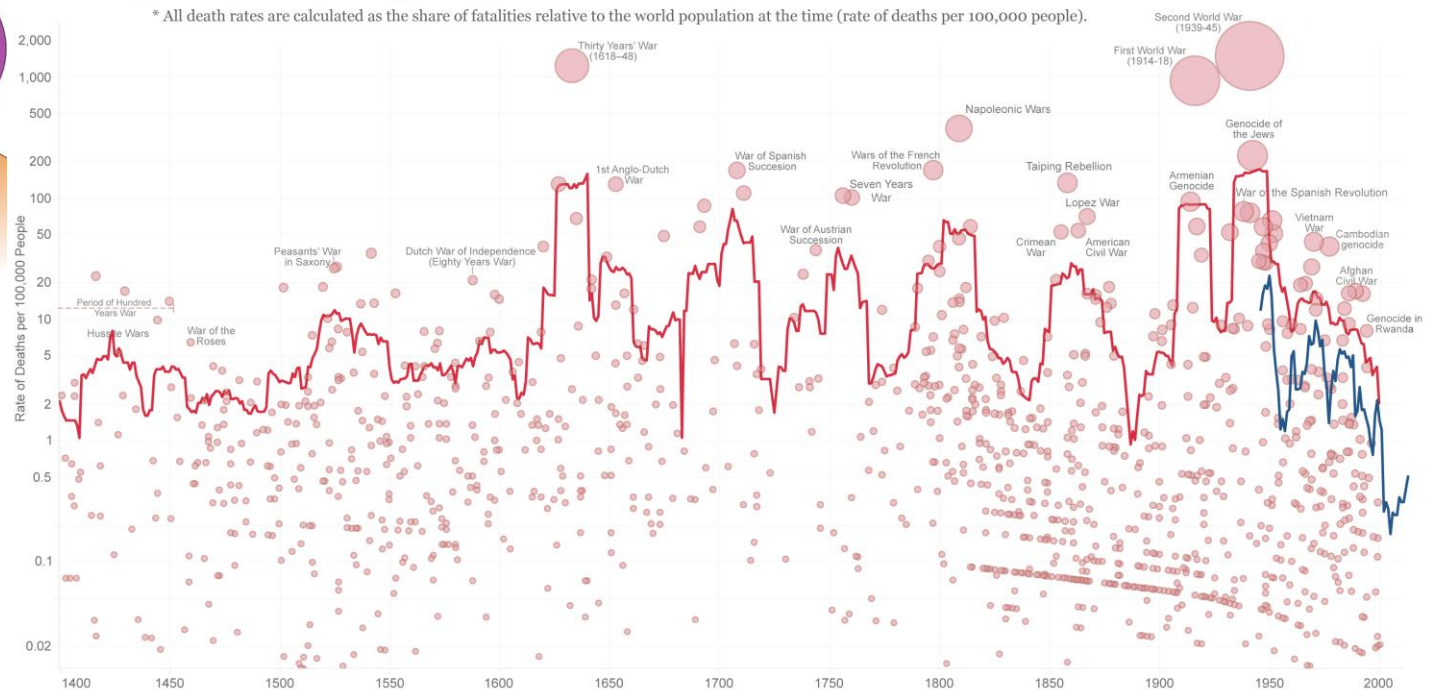
The **size** represents the absolute number of fatalities (military + civilian fatalities)

The **position** on the y-axis represents the fatality rate* (military + civilian fatalities)

— Military + civilian death rate* for 1400-2000 [Data from *Conflict Catalog*] – 15 year moving-average

— Military death rate* for 1946-2013 [Data from the PRIO Institute]

* All death rates are calculated as the share of fatalities relative to the world population at the time (rate of deaths per 100,000 people).



Data sources: Battle Deaths Dataset v.3.0. published by the PRIO Institute and Conflict Catalog by Peter Brecke for data on battle deaths. And world population data from HYDE and UN.

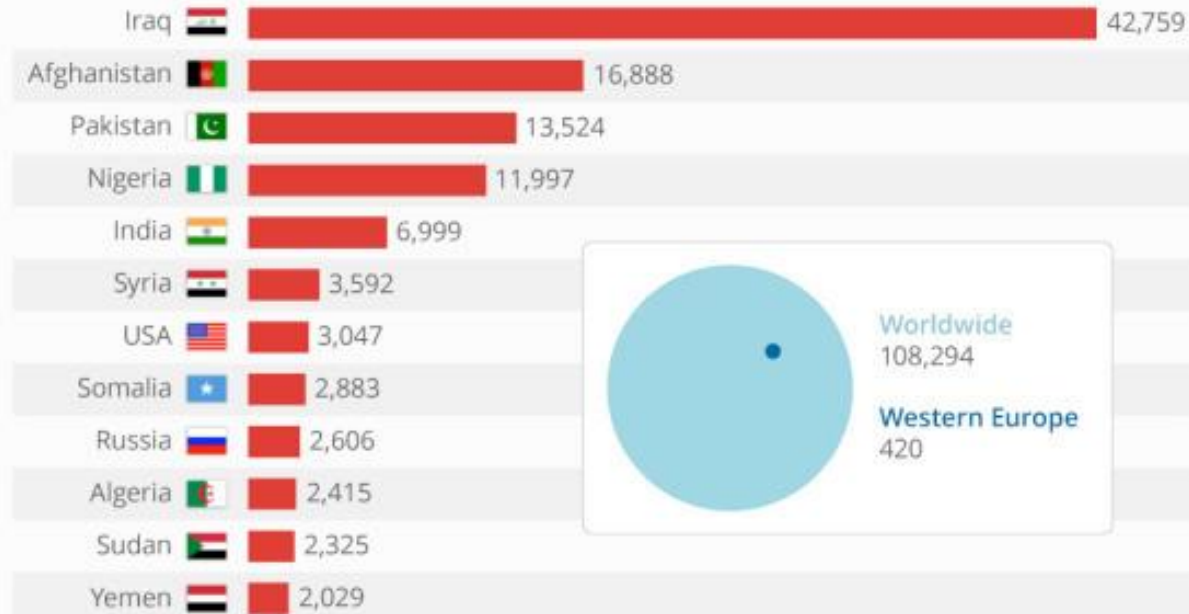
This is a data visualisation from [OurWorldinData.org](https://www.ourworldindata.org). There you find more visualisations on this topic.

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Terrorism Threat

Victims Of Terrorist Attacks Beyond Western Europe

Number of persons killed by terrorist attacks in selected countries, 2001-2014



Source: @StatistaCharts Global Terrorism Database

THE HUFFINGTON POST statista





“We have LESS than 100 YEARS to save the human race”

Stephen Hawking



“The probability of global catastrophe is very high”

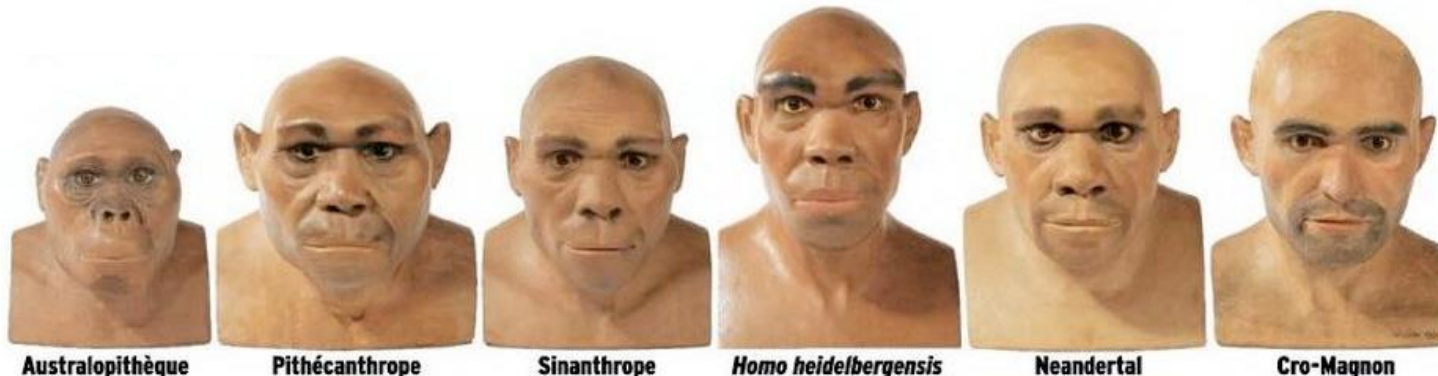
- Nuclear weapons and climate change, “humanity’s most pressing existential threats”
- “inaction and brinkmanship have continued, endangering every person, everywhere on Earth”
- Mass murder. Catastrophic climate change. Nuclear annihilation.



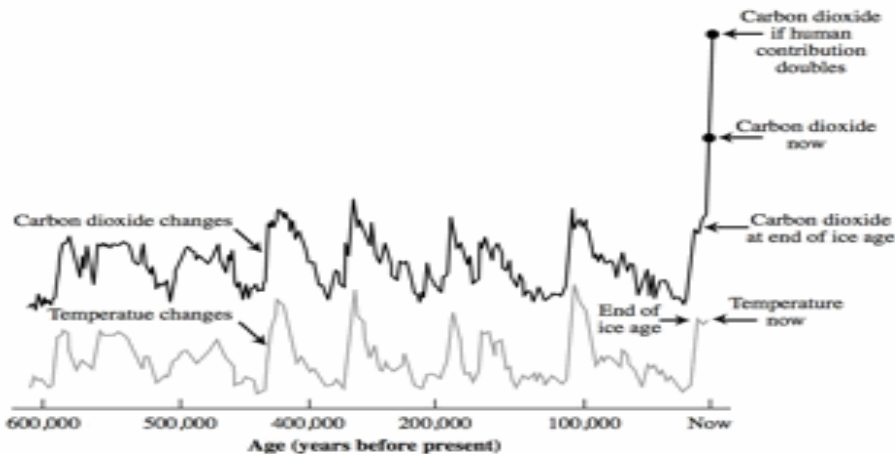
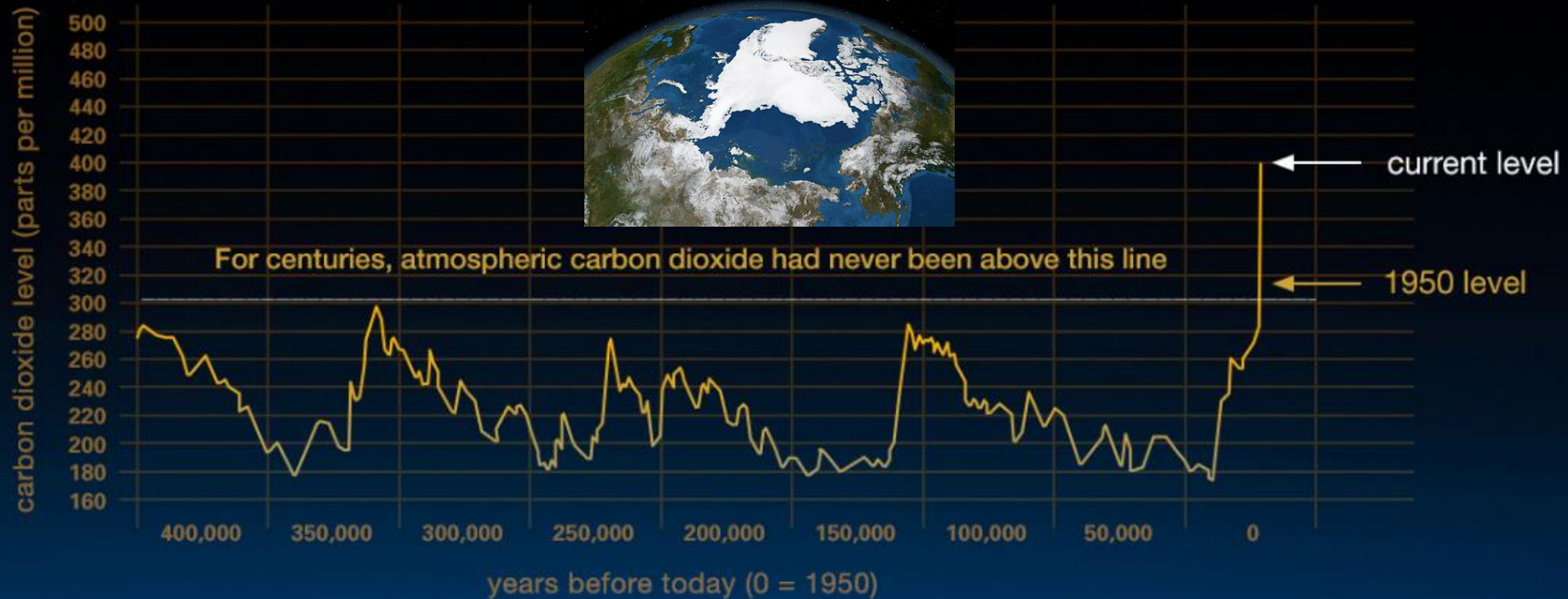
Is it the end ?



- -7 millions : Toumai
- - 2/3 millions : first “Homo”
- - 300,000 years: “modern” Man in Africa
- - 40,000 years : “modern” man in Europe
- - 10,000 years : agriculture
- 1800 : Jenner vaccine
- 1940 : antibiotics
- 1970-1980 : cardiovascular medications
- 1996 : clone Dolly



Global warming

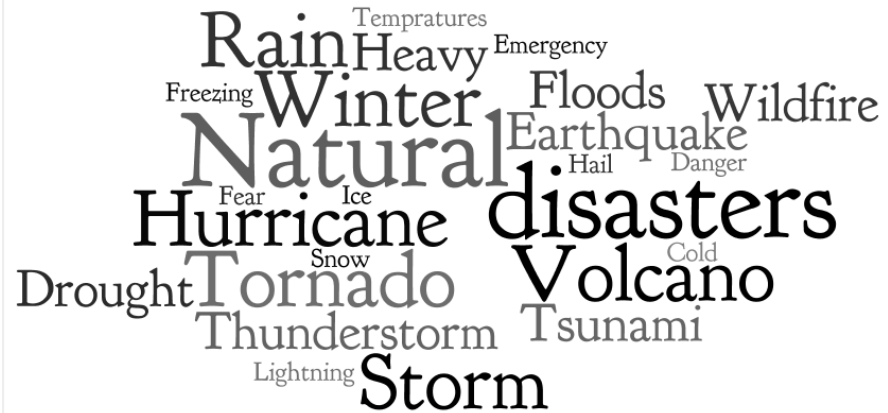


1988 “Miracle” happened..in Alaska



Disaster Principles

- Detection
- Incident & Command
- Safety & Security
- Assess Hazard
- Support
- Triage & Treatment
- Evacuation
- Recovery



Lessons learned from Man induced MCI

1. know **who** was there
2. have **public health** input to the disaster response
3. collect **health and needs data** rapidly
4. **take care** of the affected
5. emergency **preparedness**
6. data driven, needs assessment, advocacy



[BMC Public Health](#), 2017 Jan 7;17(1):46. doi: 10.1186/s12889-016-3939-3.

A comparative assessment of major international disasters: the need for exposure assessment, systematic emergency preparedness, and lifetime health care.

[Lucchini RG](#)^{1,2}, [Hashim D](#)³, [Acquilla S](#)⁴, [Basanets A](#)⁵, [Bertazzi PA](#)⁶, [Bushmanov A](#)⁷, [Crane M](#)¹, [Harrison DJ](#)⁸, [Holden W](#)¹, [Landrigan PJ](#)¹, [Luft BJ](#)⁹, [Mocarelli P](#)¹⁰, [Mazitova N](#)⁷, [Melius J](#)¹¹, [Moline JM](#)¹², [Mori K](#)¹³, [Prezant D](#)¹⁴, [Reibman J](#)¹⁵, [Reissman DB](#)¹⁶, [Stazharau A](#)¹⁷, [Takahashi K](#)¹³, [Udasin IG](#)¹⁸, [Todd AC](#)¹.



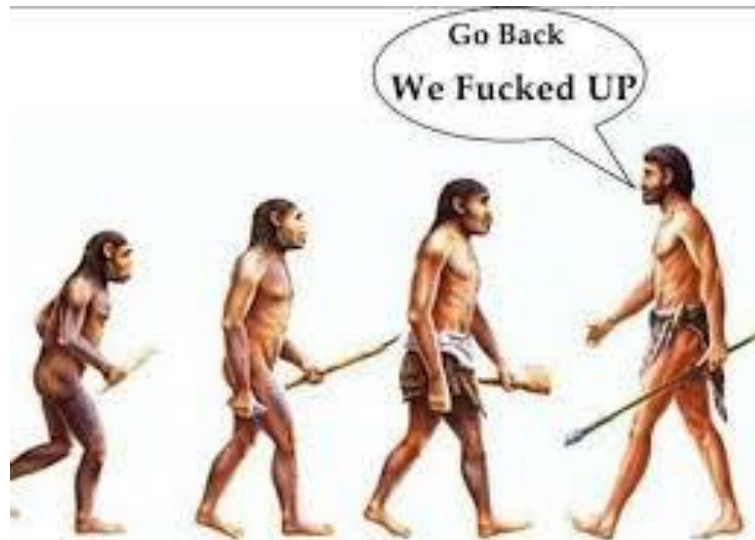
- **P**LAN
- **R**ESPONSE (Timely)
- **E**XPERIMENT new ideas, Procotols, Procedures
- **P**REPARATION
- **A**CCES to Mobile Decontamination Facilities
- **R**EAL TIME communication system
- **E**VALUATION
- **D**ISASTER DRILLS



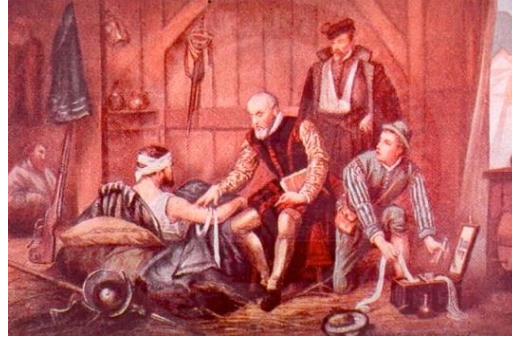
Conclusions

*"Knowing is not enough; we must apply.
Willing is not enough; we must do."
—Goethe*

- Man-made incidents continue to occur ...
- Prompt recognition of a possible new threat is crucial
- Prevention ,treatment, preventative measures
- Prepare providers to anticipate to intervene



We will prepare and be there



Thank you- saġol

